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The use of computers in music education in South West Africa

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31	3	2-2	c	C3-C5	1:0	7	3	80	6/8	c	sl 2,9,11	0	3/4, 4/4
32	3	2-2	c	C3-C5	1:0	7	3	80	6/8	c	sl 2,3,9,11	0	3/4, 4/4
33	3	2-2	c	C3-C5	1:0	7	3	80	6/8	c	sl 2,3,9,11,12	0	3/4, 4/4
											sv 1,1,1,1,2		
34	3	3-4	c	C3-C5	1:0	6	3	80	6/8	c	sl 2,9,11	0	3/4, 4/4
35	3	3-4	c	C3-C5	1:0	6	3	80	6/8	c	sl 3,9,11,22	0	3/4, 4/4
36	3	4-4	c	C3-C5	1:0	6	3	80	6/8	c	sl 3,9,11,12,22	0	3/4, 4/4
											sv 1,1,1,2,1		
37	5	2-4	c	G3-G5	1:0	u	u	0	1/0	c	sl 3,9,11,12,22	0	3/4, 4/4
38	4	2-2	c	C3-C5	1:0	6	3	80	6/8	c	sl 2,9,11	0	2/4, 3/4, 4/4
39	4	2-2	c	C3-C5	1:0	6	3	80	6/8	c	sl 3,9,11,22	0	2/4, 3/4, 4/4
40	4	2-2	c	G3-G5	1:0	6	3	80	6/8	c	sl 3,9,11,12,22	0	2/4, 3/4, 4/4
											sv 1,1,1,2,1		
41	4	3-4	c	G3-G5	1:0	6	2	80	6/8	c	sl 2,9,11	0	2/3, 3/4, 4/4
42	4	3-4	c	G3-G5	1:0	6	2	80	6/8	c	sl 3,9,11,22	0	2/4, 3/4, 4/4
43	4	4-4	c	G3-G5	1:0	6	2	80	6/8	c	sl 3,9,11,12,22	0	2/4, 3/4, 4/4
44	5	2-4	c	G3-G5	1:0	u	u	0	1/0	c	sl 3,9,11,12,22	0	2/4, 3/4, 4/4

RHYTHM Disk 4

TITLES (Disk 4):

1 Simple time signature: 2/4 (simple duple).
2 Simple time signature: 3/4 (simple triple).
3 Simple time signatures: 2/4 and 3/4.
4. Simple time signature: 4/4 (simple quadruple).
5. Practice unit.

PATTERNS (Disk 4):

LIST 1	1	(1.00:1.00) 1/4 1
	2	1 (2.00:2.00) 1/2 1
	3	1 (3.00:3.00) 3/4 1
	4	1 (1.00:1.00) 1/4 1 2 (2.00:2.00) 1/2 1 3 (3.00:3.00) 3/4 1
	5	1 (4.00:4.00) 1/1 1
	6	1 (3.00:3.00) 1/2 1/4 2
	7	1 (3.00:3.00) 1/4 1/2 2
	8	1 (2.00:2.00) 1/2 1 2 (1.00:1.00) 1/4 1
	9	1 (2.00:2.00) 1/4 1/4 2
	10	1 (0.50:0.50) 1/8 1
	11	1 (1.00:1.00) 1/8 1/8 2
	12	1 (2.00:2.00) 3/8 1/8 2
	13	1 (3.00:3.00) 1/8 1/8 1/8 1/8 1/8 1/8 6
	14	1 (3.00:3.00) 1/4 1/4 1/8 1/8 4
	15	1 (3.00:3.00) 1/4 1/8 1/8 1/4 4
	16	1 (3.00:3.00) 1/8 1/8 1/4 1/4 4
	17	1 (2.00:2.00) 1/8 1/8 1/8 1/8 4
	18	1 (1.00:1.00) 1/16 1/16 1/16 1/16 4
	19	1 (1.00:1.00) 1/8 1/16 1/16 3

```
20      1 (1.00:1.00) 1/16 1/16 1/8 3

21      1 (1.00:1.00) 3/16 1/16 2

22      1 (1.00:1.00) 1/16 1/16 1/16 1/16 4
        2 (1.00:1.00) 1/8 1/16 1/16 3
        3 (1.00:1.00) 1/16 1/16 1/8 3

23      1 (4.00:4.00) 3/4 1/4 2
        2 (4.00:4.00) 3/4 1/8 1/8 3
        3 (4.00:4.00) 3/4 1/16 1/16 1/16 1/16 5

24      1 (4.00:4.00) 3/4 1/8 1/16 1/16 4
        2 (4.00:4.00) 3/4 1/16 1/16 1/8 4

25      1 (4.00:4.00) 3/4 3/16 1/16 3

26      1 (4.00:4.00) 3/4 1/4 2
        2 (4.00:4.00) 3/4 1/8 1/8 3
        3 (4.00:4.00) 3/4 1/16 1/16 1/16 1/16 5
        4 (4.00:4.00) 3/4 1/8 1/16 1/16 4
        5 (4.00:4.00) 3/4 1/16 1/16 1/8 4
        6 (4.00:4.00) 3/4 3/16 1/16 3

27      1 (2.00:2.00) 1/2 1
        2 (2.00:2.00) 1/4 1/4 2
        3 (2.00:2.00) 1/8 1/8 1/8 1/8 4

28      1 (4.00:4.00) 1/1 1
        2 (1.00:1.00) 1/4 1
        3 (1.00:1.00) 1/8 1/8 2
```

UNITS (Disk 4):

1	1	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 18	0	2/4
2	1	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 11,18	0	2/4
3	1	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 1,18	0	2/4
4	1	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 1,11,18	0	2/4
											sv 1,1,2		
5	1	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 1,11,19	0	2/4
											sv 1,1,2		
6	1	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 1,11,20	0	2/4
											sv 1,1,2		
7	1	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 1,11,22	0	2/4
											sv 1,1,2		
8	1	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 8,11,22	0	2/4
9	1	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 21	0	2/4
10	1	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 8,11,12,21,22	0	2/4
11	1	3-4	c	C3-C5	1:0	6	u	80	4/5	c	sl 1,11,22	0	2/4
12	1	3-4	c	C3-C5	1:0	6	u	80	4/5	c	sl 8,11,22	0	2/4
13	1	3-4	c	C3-C5	1:0	6	u	80	6/8	c	sl 8,11,12,21,22	0	2/4
14	5	2-4	c	C3-C5	1:0	u	u	0	1/0	c	sl 8,11,12,21,22	0	2/4
15	2	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 18	0	3/4

16	2	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 11,18	0	3/4
17	2	2-2	c	G3-G5	1:0	7	u	80	4/5	c	sl 1,18	0	3/4
18	2	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 1,11,18	0	3/4
19	2	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 1,11,19 sv 1,1,2	0	3/4
20	2	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 1,11,20 sv 1,1,2	0	3/4
21	2	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 1,11,22 sv 1,1,2	0	3/4
22	2	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 8,11,12	0	3/4
23	2	2-2	c	C3-C5	1:0	7	u	80	4/5	c	sl 21	0	3/4
24	2	2-2	c	C3-C5	1:0	7	u	80	5/7	c	sl 4,11,12,21,22	0	3/4
25	2	3-4	c	G3-G5	1:0	6	u	80	4/5	c	sl 1,11,22	0	3/4
26	2	3-4	c	C3-C5	1:0	6	u	80	4/5	c	sl 8,11,22	0	3/4
27	2	3-4	c	C3-C5	1:0	6	u	80	6/8	c	sl 4,11,12,21,22	0	3/4
28	5	2-4	c	G3-G5	1:0	u	u	0	1/0	c	sl 4,11,12,21,22	0	3/4
29	3	2-2	c	C3-C5	1:0	5	3	80	4/5	c	sl 1,11,22 sv 1,1,2	0	2/4, 3/4
30	3	2-2	c	C3-C5	1:0	5	3	80	4/5	c	sl 4,11,22 sv 1,1,2	0	2/4, 3/4
31	3	3-4	c	C3-C5	1:0	5	4	80	5/7	c	sl 4,11,12,21,22	0	2/4, 3/4
32	3	4-4	c	C3-C5	1:0	5	3	80	6/8	c	sl 4,11,12,21,22	0	2/4, 3/4
33	5	2-4	c	G3-G5	1:0	u	3	0	1/0	c	sl 4,11,12,21,22	0	2/4, 3/4
34	4	2-2	c	C3-C5	1:0	6	u	80	4/5	c	sl 1,18 sv 1,2	0	4/4
35	4	2-2	c	C3-C5	1:0	6	u	80	4/5	c	sl 1,11,18	0	4/4
36	4	2-2	c	C3-C5	1:0	6	u	80	4/5	c	sl 11,21 sv 1,2	0	4/4
37	4	2-2	c	C3-C5	1:0	6	u	80	4/5	c	sl 22	0	4/4
38	4	2-2	c	C3-C5	1:0	6	u	80	4/5	c	sl 1,5,11,22	0	4/4
39	4	2-2	c	C3-C5	1:0	6	u	80	4/5	c	sl 5,27	0	4/4
40	4	2-2	c	C3-C5	1:0	6	u	80	6/8	c	sl 1,5,11,21,22 sv 1,1,1,2,1	0	4/4
41		2-2	c	C3-C5	1:0	6	u	80	6/8	c	sl 1,5,11,22,26	0	4/4
42	4	2-2	c	G3-G5	1:0	5	u	80	6/8	c	sl 12,21,22,26,280		4/4
43	4	2-3	c	G3-G5	1:0	5	u	80	6/8	c	sl 1,9,11,18	0	4/4
44	5	2-3	c	G3-G5	1:0	u	u	0	1/0	c	sl 12,21,22,26,280		4/4

RHYTHM Disk 5

TITLES (Disk 5):

1 Simple time signature: 4/4 (simple quadruple).
2 Practice unit.
3 Simple time signatures: 2/4, 3/4 and 4/4.
4 Simple time signature: 2/2 (simple duple).
5 Compound time signature: 6/8 (compound duple).
6 Simple time signature: 3/2 (simple triple).

PATTERNS (Disk 5):

LIST 1
1 (1.00:1.00) 1/4 1
2 (1.00:1.00) 1/8 1/8 2
3 (1.00:1.00) 1/16 1/16 1/16/ 1/16 4

2
1 (1.00:1.00) 1/8 1/8 2
2 (1.00:1.00) 3/16 1/16 2
3 (1.00:1.00) 1/16 1/16 1/16 1/16 4
4 (1.00:1.00) 1/8 1/16 1/16 3
5 (1.00:1.00) 1/16 1/16 1/8 3

3
1 (1.00:1.00) 1/4 1
2 (4.00:4.00) 1/1 1
3 (1.00:1.00) 1/8 1/8 2
4 (1.00:1.00) 1/16 1/16 1/16 1/16 4
5 (1.00:1.00) 1/8 1/16 1/16 3
6 (1.00:1.00) 1/16 1/16 1/8 3

4
1 (1.00:1.00) 1/4 1
2 (4.00:4.00) 1/1 1
3 (1.00:1.00) 1/8 1/8 2
4 (1.00:1.00) 3/16 1/16 2
5 (1.00:1.00) 1/16 1/16 1/16 1/16 4
6 (1.00:1.00) 1/8 1/16 1/16 3
7 (1.00:1.00) 1/16 1/16 1/8 3

5
1 (1.00:1.00) 1/4 1
2 (4.00:4.00) 1/1 1
3 (1.00:1.00) 1/8 1/8 2
4 (1.00:1.00) 1/16 1/16 1/16 1/16 4
5 (1.00:1.00) 1/8 1/16 1/16 3
6 (1.00:1.00) 1/16 1/16 1/8 3
7 (4.00:4.00) 3/4 1/4 2
8 (4.00:4.00) 3/4 1/8 1/8 3
9 (4.00:4.00) 3/4 1/16 1/16 1/16 1/16 5
10 (4.00:4.00) 3/4 1/8 1/16 1/16 4
11 (4.00:4.00) 3/4 1/16 1/16 1/8 4
12 (4.00:4.00) 3/4 3/16 1/16 3

6
1 (2.00:2.00) 3/8 1/8 2
2 (1.00:1.00) 3/16 1/16 2

```
 7      1 (2.00:2.00) 1/4 1/4 2

 8      1 (1.00:1.00) 1/8 1/8 2

 9      1 (2.00:2.00) 1/2 1

10      1 (1.00:1.00) 1/4 1
        2 (1.00:1.00) 1/8 1/8 2
        3 (2.00:2.00) 1/2 1

11      1 (1.00:1.00) 1/16 1/16 1/16 1/16 4

12      1 (1.00:1.00) 1/8 1/16 1/16 3
        2 (1.00:1.00) 1/16 1/16 1/8 3

13      1 (1.00:1.00) 3/16 1/16 2

14      1 (1.00:1.00) 1/32 1/32 1/32 1/32 1/32 1/32 1/32 1/32 8
        2 (1.00:1.00) 1/32 1/32 1/32 1/32 1/16 1/16 6
        3 (1.00:1.00) 1/16 1/16 1/32 1/32 1/32 1/32 6
        4 (1.00:1.00) 1/32 1/32 1/32 1/32 1/8 5
        5 (1.00:1.00) 1/8 1/32 1/32 1/32 1/32 5

15      1 (1.00:1.00) 3/32 1/32 3/32 1/32 4
        2 (1.00:1.00) 3/32 1/32 1/32 1/32 1/32 1/32 6
        3 (1.00:1.00) 1/32 1/32 1/32 1/32 3/32 1/32 6
        4 (1.00:1.00) 3/32 1/32 1/16 1/16 4
        5 (1.00:1.00) 1/16 1/16 3/32 1/32 4
        6 (1.00:1.00) 3/32 1/32 1/8 3
        7 (1.00:1.00) 1/8 3/32 1/32 3

16      1 (1.50:1.50) 3/8 1

17      1 (1.50:1.50) 1/8 1/8 1/8 3

18      1 (1.50:1.50) 1/4 1/8 2

19      1 (1.50:1.50) 1/8 1/16 1/16 1/8 4
        2 (1.50:1.50) 1/16 1/16 1/8 1/8 4
        3 (1.50:1.50) 1/8 1/8 1/16 1/16 4

20      1 (1.50:1.50) 1/8 1/16 1/16 1/16 1/16 5
        2 (1.50:1.50) 1/16 1/16 1/16 1/16 1/8 5
        3 (1.50:1.50) 1/16 1/16 1/16 1/16 1/16 1/16 6

21      1 (3.00:3.00) 3/4 1

22      1 (4.50:4.50) 3/4 3/8 2

23      1 (3.00:3.00) 1/4 1/4 1/4 3

24      1 (3.00:3.00) 1/2 1/4 2
```

```
          2 (3.00:3.00) 3/4 1

25        1 (1.00:1.00) 1/4 1
          2 (2.00:2.00) 1/2 1
          3 (3.00:3.00) 3/4 1
          4 (1.00:1.00) 1/8 1/8 2

26        1 (1.00:1.00) 1/16 1/16 1/16 1/16 4
          2 (1.00:1.00) 1/8 1/16 1/16 3
          3 (1.00:1.00) 1/16 1/16 1/8 3
          4 (1.00:1.00) 3/16 1/16 2

27        1 (4.00:4.00) 1/2 1/4 1/4 3
          2 (4.00:4.00) 1/4 1/4 1/2 3

28        1 (4.00:4.00) 1/2 1/4 1/4 3
          2 (4.00:4.00) 1/4 1/4 1/2 3

29        1 (4.00:4.00) 3/4 1/4 2
          2 (4.00:4.00) 1/1 1

30        1 (1.00:1.00)  1/8 1/8 2
          2 (1.00:1.00) 1/4 1
```

UNITS (Disk 5):

1	1	2-3	a	C3-C5	1:0	5	3	80	6/8	c	sl 1	0	4/4
2	1	2-3	a	C3-C5	1:0	5	3	80	6/8	c	sl 3	0	4/4
3	1	2-3	a	C3-C5	1:0	5	3	80	6/8	c	sl 4	0	4/4
4	1	2-3	a	C3-C5	1:0	5	3	80	6/8	c	sl 5	0	4/4
5	1	2-3	a	C3-C5	1:0	5	3	80	6/8	c	sl 5,6	0	4/4
6	2	2-3	a	G3-G5	1:0	u	3	0	1/0	c	sl 5,6	0	4/4
7	3	2-3	a	C3-C5	1:0	5	3	80	6/8	c	sl 2	0	2/4, 3/4, 4/4
8	3	2-3	a	C3-C5	1:0	5	3	80	6/8	c	sl 3	0	2/4, 3/4, 4/4
9	3	2-3	a	C3-C5	1:0	5	3	80	6/8	c	sl 4	0	2/4, 3/4, 4/4
10	3	2-3	a	C3-C5	1:0	5	3	80	6/8	c	sl 5	0	2/4, 3/4, 4/4
11	3	2-3	a	C3-C5	1:0	5	3	80	8/10	c	sl 5,6	0	2/4, 3/4, 4/4
12	2	2-3	a	G3-G5	1:0	u	u	0	1/0	c	sl 5,6	0	2/4, 3/4, 4/4
13	4	2-2	a	C3-C5	1:0	6	u	80	4/5	c	sl 7	0	2/2
14	4	2-2	a	C3-C5	1:0	6	u	80	4/5	c	sl 7,8	0	2/2
15	4	2-2	a	C3-C5	1:0	6	u	80	4/5	c	sl 9	0	2/2
16	4	2-2	a	C3-C5	1:0	6	u	80	6/8	c	sl 10	0	2/2
17	4	2-2	a	C3-C5	1:0	6	u	80	6/8	c	sl 10,11	0	2/2
18	4	2-2	a	C3-C5	1:0	5	u	80	8/10	c	sl 10,11,12	0	2/2
19	4	2-2	a	C3-C5	1:0	5	u	80	8/10	c	sl 10,11,12,13	0	2/2
20	4	2-2	a	C3-C5	1:0	5	u	80	8/10	c	sl 14	0	2/2
21	4	2-2	a	C3-C5	1:0	5	u	80	8/10	c	sl 15	0	2/2
22	4	2-2	a	C3-C5	1:0	5	u	80	8/10	c	sl 14,15	0	2/2
23	4	2-2	a	C3-C5	1:0	5	u	80	8/10	c	sl 10,14,15	0	2/2
24	4	2-2	a	C3-C5	1:0	4	u	80	8/10	c	sl 10,12,13,14,150		2/2
25	2	2-2	a	G3-G5	1:0	u	u	0	1/0	c	sl 10,12,13,14,150		2/2
26	5	2-2	a	C3-C5	0:1	6	u	80	4/5	c	cl 16	0	6/8
27	5	2-2	a	C3-C5	0:1	6	u	80	4/5	c	cl 16,17	0	6/8

28	5	2-2	c	C3-C5	0:1	6	u	80	4/5	c	cl 16,17,18	0	6/8
29	5	2-2	c	C3-C5	0:1	6	u	80	6/8	c	cl 16,17,18,19	0	6/8
30	5	2-2	c	C3-C5	0:1	6	u	80	6/8	c	cl 16,17,18,19,200		6/8
31	5	2-2	c	C3-C5	0:1	5	u	80	8/10	c	cl 16,17,18,19,200		6/8
32	5	2-3	c	C3-C5	0:1	5	u	80	8/10	c	cl 16,17,18,19,200		6/8
33	2	2-4	c	G3-G5	0:1	u	u	0	1/0	c	cl 16,17,18,19,200		6/8
34	6	2-2	c	G3-G5	1:0	5	u	80	4/5	c	sl 23	0	3/2
35	6	2-2	c	G3-G5	1:0	5	u	80	4/5	c	sl 23,24	0	3/2
36	6	2-2	c	G3-G5	1:0	5	u	80	6/8	c	sl 25	0	3/2
37	6	2-2	c	G3-G5	1:0	5	u	80	6/8	c	sl 26	0	3/2
38	6	2-2	c	G3-G5	1:0	5	u	80	6/8	c	sl 25,26	0	3/2
39	6	2-2	c	G3-G5	1:0	5	u	80	7/9	c	sl 23,24,25,26	0	3/2
40	6	2-2	c	G3-G5	1:0	5	u	80	5/7	c	sl 14,26	0	3/2
41	6	2-2	c	G3-G5	1:0	5	u	80	7/9	c	sl 14,15,26	0	3/2
42	6	2-2	c	G3-G5	1:0	5	u	80	8/10	c	sl 14,15,24,25,260		3/2
43	2	2-2	c	G3-G5	1:0	u	u	0	1/0	c	sl 14,15,24,25,260		3/2

RHYTHM Disk 6

TITLES (Disk 6):

1 Simple time signature: 4/2 (simple quadruple).
2 Practice unit.
3 Compound time signature: 9/8 (compound triple).
4 Compound time signature: 12/8 (compound quadruple).
5 Simple time signatures: 2/8 and 4/8.
6 Simple time signature: 3/8 (simple triple).

PATTERNS (Disk 6):

```
LIST  1     1 (4.00:4.00) 1/4 1/4 1/4 1/4 4

      2     1 (4.00:4.00) 1/2 1/4 1/4 3
            2 (4.00:4.00) 1/4 1/4 1/2 3

      3     1 (4.00:4.00) 3/4 1/4 2
            2 (4.00:4.00) 1/1 1

      4     1 (1.00:1.00) 1/8 1/8 2
            2 (1.00:1.00) 1/4 1

      5     1 (1.00:1.00) 1/16 1/16 1/16 1/16 4
            2 (1.00:1.00) 1/8 1/16 1/16 3
            3 (1.00:1.00) 1/16 1/16 1/8 3
            4 (1.00:1.00) 3/16 1/16 1/8 3

      6     1 (1.00:1.00) 1/32 1/32 1/32 1/32 1/32 1/32 1/32 1/32 8
            2 (1.00:1.00) 1/32 1/32 1/32 1/32 1/16 1/16 6
            3 (1.00:1.00) 1/16 1/16 1/32 1/32 1/32 1/32 6
            4 (1.00:1.00) 1/32 1/32 1/32 1/32 1/8 5
            5 (1.00:1.00) 1/8 1/32 1/32 1/32 1/32 5

      7     1 (1.00:1.00) 3/32 1/32 3/32 1/32 4
            2 (1.00:1.00) 3/32 1/32 1/32 1/32 1/32 1/32 6
            3 (1.00:1.00) 3/32 1/32 1/16 1/16 4
            4 (1.00:1.00) 3/32 1/32 1/8 3

      8     1 (1.50:1.50) 3/8 1

      9     1 (1.50:1.50) 1/8 1/8 1/8 3

     10     1 (1.50:1.50) 1/4 1/8 2

     11     1 (1.50:1.50) 3/8 1
            2 (1.50:1.50) 1/8 1/8 1/8 3
            3 (1.50:1.50) 1/4 1/8 2

     12     1 (1.50:1.50) 1/8 1/16 1/16 1/8 4
            2 (1.50:1.50) 1/16 1/16 1/8 1/8 4
            3 (1.50:1.50) 1/8 1/8 1/16 1/16 4
```

```
        4 (1.50:1.50) 1/4 1/16 1/16 3

13      1 (1.50:1.50) 1/8 1/16 1/16 1/16 1/16 5
        2 (1.50:1.50) 1/16 1/16 1/16 1/16 1/8 5
        3 (1.50:1.50) 1/16 1/16 1/16 1/16 1/16 1/16 6
        4 (1.50:1.50) 3/16 1/16 1/8 3

14      1 (4.50:4.50) 3/4 3/8 2
        2 (4.50:4.50) 3/4 1/8 1/8 1/8 4
        3 (4.50:4.50) 3/4 1/4 1/8 3

15      1 (4.50:4.50) 3/4 1/8 1/16 1/16 1/8 5
        2 (4.50:4.50) 3/4 1/16 1/16 1/8 1/8 5
        3 (4.50:4.50) 3/4 1/8 1/8 1/16 1/16 5
        4 (4.50:4.50) 3/4 1/8 1/16 1/16 1/16 1/16 6
        5 (4.50:4.50) 3/4 1/16 1/16 1/16 1/16 1/8 6
        6 (4.50:4.50) 3/4 1/16 1/16 1/16 1/16 1/16 1/16 7

16      1 (6.00:6.00) 3/2 1
        2 (6.00:6.00) 3/4 3/4 2
        3 (6.00:6.00) 3/4 3/8 3/8 3
        4 (6.00:6.00) 3/4 3/8 1/8 1/8 1/8 5
        5 (6.00:6.00) 3/4 3/8 1/4 1/8 4
        6 (6.00:6.00) 3/4 1/8 1/8 1/8 3/8 5
        7 (6.00:6.00) 3/4 1/4 1/8 3/8 4

17      1 (1.00:1.00) 1/4 1

18      1 (1.00:1.00) 1/8 1/8 2

19      1 (2.00:2.00) 1/2 1

20      1 (1.00:1.00) 1/16 1/16 1/16 1/16 4
        2 (1.00:1.00) 3/16 1/16 2
        3 (1.00:1.00) 1/8 1/16 1/16 3
        4 (1.00:1.00) 1/16 1/16 1/8 3

21      1 (3.00:3.00) 1/4 1/4 1/4 3

22      1 (1.00:1.00) 1/4 1
        2 (1.00:1.00) 1/8 1/8 2

23      1 (3.00:3.00) 1/8 1/8 1/8 1/3 1/8 1/8 6

24      1 (3.00:3.00) 3/4 1
```


UNITS (Disk 6):

1	1	2-2	a	C3-C5	1:0	5	u	80	4/5	a	sl 1	0	4/2
2	1	2-2	a	C3-C5	1:0	5	u	80	4/5	a	sl 1,2	0	4/2
3	1	2-2	a	C3-C5	1:0	5	u	80	4/5	a	sl 1,2,3	0	4/2

	1	2-2	c	C3-C5	1:0	5	u	80	4/5	c	sl 2,3,4		0	4/2			
	1	2-2	c	C3-C5	1:0	5	u	80	6/8	c	sl 3,4,5		0	4/2			
	1	2-2	c	C3-C5	1:0	5	u	80	6/8	c	sl 3,4,6		0	4/2			
7	1	2-2	c	G3-G5	1:0	5	u	80	6/8	c	sl 3,4,7		0	4/2			
8	1	2-2	c	C3-C5	1:0	5	u	80	6/8	c	sl 3,4,5,6,7		0	4/2			
9	2	2-2	c	G3-G5	1:0	u	u	0	1/0	c	sl 3,4,5,6,7		0	9/8			
10	3	2-2	c	C3-C5	);1	5	u	80	4/5	c	cl 8		0	9/8			
11	3	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 8		0	9/8			
12	3	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 9,10		0	9/8			
13	3	2-2	c	C3-C5	0:1	5	u	80	6/8	c	cl 11,12		0	9/8			
14	3	2-2	c	C3-C5	0:1	5	u	80	6/8	c	cl 11,13		0	9/8			
15	3	2-2	c	C3-C5	0:1	5	u	80	6/8	c	cl 11,14		0	9/8			
16	3	2-2	c	C3-C5	0:1	5	u	80	6/8	c	cl 11,15		0	9/8			
17	3	2-2	c	C3-C5	0:1	5	u	80	8/10	c	cl 11,12,13,14,150			9/8			
18	2	2-2	c	G3-G5	0:1	u	u	0	1/0	c	cl 11,12,13,14,150			9/8			
19	4	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 8		0	12/8			
20	4	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cll 11		0	12/8			
21	4	2-2	c	C3-C5	0:1	5	u	80	6/8	c	cl 11,16		0	12/8			
22	4	2-2	c	C3-C5	0:1	5	u	80	6/8	c	cl 11,12		0	12/8			
23	4	2-2	c	C3-C5	0:1	5	u	80	6/8	c	cl 11,13		0	12/8			
24	4	2-2	c	C3-C5	0:1	5	u	80	7/8	c	cl 12,13,16		0	12/8			
25	4	2-2	c	C3-C5	0:1	5	u	80	8/10	c	cl 11,12,13,16		0	12/8			
26	2	2-2	c	G3-G5	0:1	u	u	0	1/0	c	cl 11,12,13,16		0	2/8,	4/8		
27	5	2-2	c	C3-C5	1:0	5	u	80	4/5	c	sl 17		0	2/8,	4/8		
28	5	2-2	c	C3-C5	1:0	5	u	80	4/5	c	sl 17,18		0	2/8,	4/8		
29	5	2-2	c	C3-C5	1:0	5	u	80	4/5	c	sll 17,18,19		0	2/8,	4/8		
30	5	2-2	c	C3-C5	1:0	5	u	80	8/10	c	sl 17,18,19,20		0	2/8,	4/8		
31	2	2-2	c	G3-G5	1:0	u	u	0	1/0	c	sl 17,18,19,20		0	3/8			
32	6	2-4	c	C3-C5	1:0	5	u	80	4/5	c	sl 21		0	3/8			
33	6	2-2	c	C3-C5	1:0	5	u	80	4/5	c	sl 21,22		0	3/8			
34	5	2-2	c	C3-C5	1:0	5	u	80	4/5	c	sl 21,22,23		0	3/8			
35	6	2-2	c	C3-C5	1:0	5	u	80	5/7	c	sl 21,22,23,24		0	3/8			
36	6	2-2	c	G3-G5	1:0	5	u	80	8/10	c	sl 20,21,22,23,240			3/8			
37	2	2-2	c	G3-G5	1:0	u	u	0	1/0	c	sl 20,21,22,23,240			3/8			

RHYTHM Disk 7

TITLES (Disk 7):

1 Compound time signature: 6/4 (compound duple).
2 Practice unit.
3 Compound time signature: 9/4 (compound triple).
4 Compound time signature: 12/4 (compound quadruple).
5 Compound time signatures: 6/16, 9/16 and 12/16.
6 Rests in simple time signature: 2/4 (simple duple).
7 Rests in simple time signature: 3/4 (simple triple).
8 Rests in simple time signature: 4/4 (simple quadruple).
9 Rests in simple time signature: 2/2 (simple duple).
10 Rests in simple time signature: 3/2 (simple triple).
11 Rests in simple time signature: 4/2 (simple quadruple).
12 Rests in compound time signatures: 6/8, 9/8 and 12/8.
13 Rests in compound time signatures: 6/4, 9/4 and 12/4.
14 Rests in simple time signatures: 2/8 and 4/8.
15 Rests in simple time signature: 3/8 (simple triple).
16 Rests in simple time signatures: 2/16, 3/16 and 4/16.

PATTERNS (Disk 7):

LIST 1 1 (1.50:1.50) 1/8 1/8 1/8 3

2 1 (1.50:1.50) 3/8 1

3 1 (3.00:3.00) 3/4 1

4 1 (1.50:1.50) 1/4 1/8 2

5 1 (1.50:1.50) 1/8 1/4 2

6 1 (1.50:1.50) 1/16 1/16 1/16 1/16 1/16 1/16 6
2 (1.50:1.50) 1/8 1/8 1/16 1/16 4
3 (1.50:1.50) 1/16 1/16 1/8 1/8 4
4 (1.50:1.50) 1/8 1/16 1/16 1/8 4
5 (1.50:1.50) 1/16 1/16 1/16 1/16 1/8 5
6 (1.50:1.50) 1/8 1/16 1/16 1/16 1/16 5
7 (1.50:1.50) 1/16 1/16 1/8 1/16 1/16 5

7 1 (1.50:1.50) 1/8 1/8 1/8 3

8 1 (1.50:1.50) 3/8 1

9 1 (3.00:3.00) 3/4 1
2 (1.50:1.50) 3/8 1

10 1 (1.50:1.50) 1/4 1/8 2

11 1 (1.00:1.00) 1/4 1
2 (2.00:2.00) 1/2 1
3 (1.00:1.00) 1/8 1/8 2

```
12      1 (1.00:1.00) 1/16 1/16 1/16 1/16 4
        2 (1.00:1.00) 1/8 1/16 1/16 3
        3 (1.00:1.00) 1/16 1/16 1/8 3
        4 (1.00:1.00) 3/16 1/16 2

13      1 (1.00:1.00) r 1/4 1
        2 (2.00:2.00) r 1/2 1
        3 (1.00:1.00) 1/8 r 1/8 2

14      1 (1.00:1.00) 1/16 1/16 r 1/8 3

15      1 (3.00:3.00) 3/4 1

16      1 (1.00:1.00) r 1/4 1
        2 (1.00:1.00) 1/8 r 1/8 2

17      1 (4.00:4.00) 1/1 1
        2 (2.00:2.00) 1/2 1
        3 (3.00:3.00) 3/4 1
        4 (2.00:2.00) 1/4 1/8 1/8 3
        5 (2.00:2.00) 1/8 1/8 1/4 3
        6 (2.00:2.00) 1/8 1/8 1/8 1/8 4
        7 (1.00:1.00) 1/4 1

18      1 (1.00:1.00) r 1/4 1
        2 (4.00:4.00) r 1/1 1
        3 (1.00:1.00) 1/8 r 1/8 2
        4 (4.00:4.00) 1/4 1/4 r 1/2 3
        5 (4.00:4.00) 1/4 1/8 1/8 r 1/2 4
        6 (4.00:4.00) 1/8 1/8 1/4 r 1/2 4

19      1 (3.00:3.00) 3/4 1
        2 (2.00:2.00) 1/2 1
        3 (2.00:2.00) 3/8 1/8 2
        4 (2.00:2.00) 3/8 1/16 1/16 3
        5 (1.00:1.00) 1/4 1
        6 (1.00:1.00) 1/8 1/8 2
        7 (1.00:1.00) 1/8 1/16 1/16 3
        8 (1.00:1.00) 1/16 1/16 1/16 1/16 4
        9 (1.00:1.00) 1/16 1/16 1/8 3
       10 (1.00:1.00) 3/16 1/16 2

20      1 (1.00:1.00) r 1/4 1
        2 (2.00:2.00) r 1/2 1

21      1 (1.00:1.00) r 1/4 1

22      1 (1.00:1.00) r 1/4 1
        2 (4.00:4.00) r 1/1 1
        3 (4.00:4.00) 1/1 1

23      1 (1.50:1.50) 1/8 1/8 1/8 3
```



```
        2 (1.50:1.50) 3/8 1
        3 (1.50:1.50) 1/4 1/8 2
        4 (3.00:3.00) 3/4 1

24      1 (1.50:1.50) r 1/4 r 1/8 2

25      1 (1.50:1.50) 1/8 1/8 1/8 3
        2 (1.50:1.50) 3/8 1
        3 (1.50:1.50) 1/4 1/8 2

26      1 (1.50:1.50) r 1/4 r 1/8 2

27      1 (1.00:1.00) 1/4 1
        2 (1.00:1.00) 1/8 1/8 2
        3 (4.00:4.00) 1/1 1

28      1 (1.00:1.00) r 1/4 1

29      1 (3.00:3.00) 1/4 1/4 1/4 3
        2 (3.00:3.00) 1/8 1/8 1/8 1/8 1/8 1/8 6
        3 (3.00:3.00) 1/2 1/4 2
        4 (3.00:3.00) 3/4 1

30      1 (3.00:3.00) 1/4 r 1/4 r 1/4 3
        2 (3.00:3.00) 1/2 r 1/4 2
        3 (3.00:3.00) 1/8 1/8 r 1/4 r 1/4 4
        4 (3.00:3.00) 1/8 1/8 r 1/4 1/8 1/8 5

31      1 (1.00:1.00) 1/4 1
        2 (2.00:2.00) 1/2 1
        3 (4.00:4.00) 1/1 1

32      1 (1.00:1.00) r 1/4 1
```

UNITS (Disk 7):

1	1	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1	0	6/4
2	1	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 2	0	6/4
3	1	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 3	0	6/4
4	1	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1,2,3	0	6/4
5	1	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 4	0	6/4
6	1	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 5	0	6/4
7	1	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1,2,3,4,5	0	6/4
8	1	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 6	0	6/4
9	1	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1,2,3,4,6	0	6/4
10	2	2-2	c	C4-C5	0:1	u	u	0	1/0	c	cl 1,2,3,4,6	0	6/4
11	3	2-2	c	C4-C5	0:1	5	u	80	4/5	c	cl 1	0	9/4
12	3	2-2	c	C4-C5	0:1	5	u	80	4/5	c	cl 2	0	9/4
13	3	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1,2,4	0	9/4
14	3	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1,2,5 cv 10,10,1	0	9/4
15	3	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 6	0	9/4

16	3	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1,2,4,6	0	9/4	
17	3	2-2	c	C4-C5	0:1	5	u	80	4/5	c	cl 1,2,4,6	0	9/4	
18	4	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1	0	12/4	
19	4	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 2	0	12/4	
20	4	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1,2,3	0	12/4	
21	4	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1,2,3,4	0	12/4	
22	4	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1,2,3,5 cv 10,10,10,1	0	12/4	
23	4	2-2	c	C3-C5	0:1	5	u	80	4/5	c	cl 1,2,3,4,6	0	12/4	
24	2	2-2	c	C4-C5	0:1	u	u	0	1/0	c	cl 1,2,3,4,6	0	12/4	
25	5	2-2	c	C3-C5	0:1	5	u	80	8/10	c	cl 7	0	6/16, 9/16, 12/16	
26	5	2-2	c	C3-C5	0:1	5	u	80	8/10	c	cl 8	0	6/16, 9/16, 12/16	
27	5	2-2	c	C3-C5	0:1	5	u	80	8/10	c	cl 7,8,9	0	6/16, 9/16, 12/16	
28	5	2-2	c	C3-C5	0:1	5	u	80	8/10	c	cl 7,8,9,10	0	6/16, 9/16, 12/16	
29	2	2-2	c	C4-C5	0:1	u	u	0	1/0	c	cl 7,8,9,10	0	6/16, 9/16, 12/16	
30	6	2-4	c	C3-C5	1:0	10	u	80	8/10	c	sl 11,13	0	2/4	
31	6	2-2	c	C3-C5	1:0	10	u	80	10/12	c	sl 11,12,13,14 sv 5,5,5,1	0	2/4	
32	2	2-4	c	G3-G5	1:0	u	u	0	1/0	c	sl 11,12,13,14	0	2/4	
33	7	2-3	c	C4-C5	1:0	10	u	80	8/10	c	sl 11,15,16	0	3/4	
34	7	2-2	c	C3-C5	1:0	10	u	80	8/10	c	sl 11,12,14,15,160 sv 5,1,5,1,5		3/4	
35	2	2-2	c	G3-G5	1:0	u	u	0	1/0	c	sl 11,12,14,15,160		3/4	
36	8	2-2	c	G3-G5	1:0	10	u	80	8/10	c	sl 17,18	0	4/4	
37	8	2-2	c	C3-C5	1:0	10	u	80	8/10	c	sl 17,18,12,14 sv 5,5,2,2	0	4/4	
38	2	2-2	c	G3-G5	1:0	u	u	0	1/0	c	sl 17,18,12,14	0	4/4	
39	9	2-3	c	G3-G5	1:0	10	u	80	8/10	c	sl 19,20 sv 2,3	0	2/2	
40	10	2-2	c	G3-G5	1:0	10	u	80	8/10	c	sl 19,21 sv 2,3	0	3/2	
41	11	2-2	c	G3-G5	1:0	10	u	80	8/10	c	sl 19,22 sv 2,3	0	4/2	
42	12	2-2	c	G3-G5	0:1	10	u	80	14/16	c	cl 23,24 cv 2,3	0	6/8, 9/8, 12/8	
43	13	2-2	c	G3-G5	0:1	10	u	80	14/16	c	cl 25,26 cv 2,3	0	6/4, 9/4, 12/4	
44	14	2-2	c	G3-G5	1:0	8	u	80	12/14	c	sl 27,28 sv 2,3	0	2/8, 4/8	
45	15	2-3	c	G3-G5	1:0	9	u	80	8/10	c	sl 29,30 sv 2,3	0	3/8	
46	16	2-3	c	G3-G5	1:0	8	u	80	8/10	c	sl 31, 32 sv 2,3	0	2/16, 3/16, 4/16	

RHYTHM Disk 8

TITLES (Disk 8):

1 Rests in compound time signatures: 6/16, 9/16 and 12/16.
2 Triplets in time signature: 2/4 (simple duple).
3 Triplets in time signature: 3/4 (simple triple).
4 Triplets in time signature: 4/4 (simple quadruple).
5 Practice unit.
6 Triplets in simple time signatures: 2/2, 3/2 and 4/2.
7 Triplets in simple time signatures: 2/8 and 4/8.
8 Triplets in simple time signature: 3/8 (simple triple).
9 Ties in simple time signatures: 2/4 and 4/4.
10 Ties in simple time signature: 3/4 (simple triple).
11 Ties in simple time signatures: 2/4, 3/4 and 4/4.
12 Ties in compound time signatures: 6/8, 9/8 and 12/8.
13 Ties in simple time signatures: 2/2, 3/2 and 4/2.
14 Ties in simple time signatures: 2/8 and 4/8.
15 Ties in simple time signature: 3/8 (simple triple).
16 Ties in compound time signatures: 6/5, 9/4 and 12/4.

PATTERNS (Disk 8):

LIST 1
1 (1.50:1.50) 1/8 1/8 1/8 3
2 (1.50:1.50) 3/8 1
3 (6.00:6.00) 3/2 1

2
1 (1.50:1.50) r 1/4 r 1/8 2

3
1 (2.00:2.00) 1/2 1
2 (1.00:1.00) 1/4 1
3 (1.00:1.00) 1/8 1/8 2
4 (2.00:2.00) 1/8 1/8 1/8 1/8 4

4
1 (1.00:1.50) 1/8 1/8 1/8 3

5
1 (1.00:1.00) 1/16 1/16 1/16 1/16 4
2 (1.00:1.00) 1/8 1/16 1/16 3
3 (1.00:1.00) 1/16 1/16 1/8 3
4 (2.00:2.00) 3/8 1/8 2
5 (1.00:1.00) 3/16 1/16 2

6
1 (3.00:3.00) 3/4 1
2 (2.00:2.00) 1/2 1
3 (1.00:1.00) 1/4 1
4 (1.00:1.00) 1/8 1/8 2
5 (3.00:3.00) 1/8 1/8 1/8 1/8 1/8 1/8 6

7
1 (4.00:4.00) 1/1 1
2 (3.00:3.00) 3/4 1
3 (2.00:2.00) 1/2 1
4 (1.00:1.00) 1/4 1
5 (1.00:1.00) 1/8 1/8 2

```
        6 (2.00:2.00) 1/8 1/8 1/4 3
        7 (2.00:2.00) 1/4 1/8 1/8 3

 8      1 (0.50:0.75) 1/16 1/16 1/16 3

 9      1 (4.00:4.00) 1/1 1
        2 (2.00:2.00) 1/2 1
        3 (1.00:1.00) 1/4 1
        4 (1.00:1.00) 1/8 1/8 2

10      1 (1.00:1.50) 1/8 1/8 1/8 3

11      1 (1.00:1.00) 1/16 1/16 1/16 1/16 4
        2 (1.00:1.00) 3/16 1/16 2
        3 (1.00:1.00) 1/8 1/16 1/16 3
        4 (1.00:1.00) 1/16 1/16 1/8 3
        5 (2.00:2.00) 3/8 1/8 2

12      1 (1.00:1.00) 1/4 1
        2 (2.00:2.00) 1/2 1
        3 (4.00:4.00) 1/1 1
        4 (1.00:1.00) 1/8 1/8 2

13      1 (1.00:1.50) 1/8 1/8 1/8 3

14      1 (1.00:1.00) 1/16 1/16 1/16 1/16 4
        2 (1.00:1.00) 1/8 1/16 1/16 3
        3 (1.00:1.00) 1/16 1/16 1/8 3
        4 (1.00:1.00) 3/16 1/16 2
        5 (2.00:2.00) 3/8 1/8 2
        6 (3.00:3.00) 3/4 1

15      1 (3.00:3.00) 1/4 1/4 1/4 3
        2 (3.00:3.00) 3/4 1
        3 (2.00:2.00) 1/2 1
        4 (1.00:1.00) 1/4 1
        5 (1.00:1.00) 1/8 1/8 2
        6 (3.00:3.00) 1/8 1/8 1/8 1/8 1/8 1/8 6

16      1 (4.00:4.00) 1/1 1
        2 (4.00:4.00) 3/4 1/4 2
        3 (4.00:4.00) 3/4 1/8 1/8 3
        4 (2.00:2.00) 1/2 1
        5 (2.00:2.00) 1/4 1/4 2
        6 (2.00:2.00) 1/8 1/8 1/8 1/8 4
        7 (2.00:2.00) 1/4 1/8 1/8 3
        8 (2.00:2.00) 1/8 1/8 1/4 3

17      1 (4.00:4.00) 1/1 1
        2 (3.00:3.00) 3/4 1
        3 (2.00:2.00) 1/2 1
        4 (1.00:1.00) 1/4 1
        5 (1.00:1.00) 1/8 1/8 2
```

	6	(1.00:1.00)	1/16 1/16 1/16 1/16 4
	7	(1.00:1.00)	1/8 1/16 1/16 3
	8	(1.00:1.00)	1/16 1/16 1/8 3
	9	(1.00:1.00)	3/16 1/16 2
	10	(2.00:2.00)	3/8 1/8 2
	11	(2.00:2.00)	3/8 1/16 1/16 3
18	1	(3.00:3.00)	1/8 1/8 1/8 1/8 1/8 1/8 1/8 6
	2	(3.00:3.00)	3/4 1
	3	(2.00:2.00)	1/2 1
	4	(1.00:1.00)	1/4 1
	5	(1.00:1.00)	1/8 1/8 2
19	1	(1.50:1.50)	1/8 1/8 1/8 3
	2	(1.50:1.50)	3/8 1
	3	(1.50:1.50)	1/4 1/8 2
	4	(3.00:3.00)	3/4 1
20	1	(1.50:1.50)	1/16 1/16 1/16 1/16 1/16 1/16 6
	2	(1.50:1.50)	1/16 1/16 1/16 1/16 1/8 5
	3	(1.50:1.50)	1/8 1/16 1/16 1/16 1/16 5
	4	(1.50:1.50)	1/8 1/16 1/16 1/8 4
	5	(1.50:1.50)	1/16 1/16 1/8 1/8 4
	6	(1.50:1.50)	1/8 1/8 1/16 1/16 4
	7	(1.50:1.50)	1/4 1/16 1/16 3
21	1	(4.00:4.00)	1/1 1
	2	(3.00:3.00)	3/4 1
	3	(2.00:2.00)	1/2 1
	4	(2.00:2.00)	3/8 1/8 2
	5	(1.00:1.00)	1/4 1
	6	(1.00:1.00)	1/8 1/8 2
22	1	(1.00:1.00)	1/16 1/16 1/16 1/16 4
	2	(1.00:1.00)	1/8 1/16 1/16 3
	3	(1.00:1.00)	1/16 1/16 1/8 3
23	1	(1.00:1.00)	1/4 1
	2	(2.00:2.00)	1/2 1
	3	(4.00:4.00)	1/1 1
	4	(3.00:3.00)	3/4 1
24	1	(1.00:1.00)	1/8 1/8 2
25	1	(3.00:3.00)	1/4 1/4 1/4 3
	2	(3.00:3.00)	1/8 1/8 1/8 1/8 1/8 1/8 6
	3	(3.00:3.00)	3/4 1
	4	(3.00:3.00)	1/2 1/4 2
26	1	(1.00:1.00)	1/8 1/8 2
	2	(1.00:1.00)	1/4 1
	3	(2.00:2.00)	1/2 1

27 1 (1.50:1.50) 3/8 1
2 (3.00:3.00) 3/4 1
3 (1.50:1.50) 1/4 1/8 2
4 (1.50:1.50) 1/8 1/8 1/8 3

28 1 (1.50:1.50) 1/4 1/16 1/16 3
2 (1.50:1.50) 1/16 1/16 1/16 1/16 1/16 1/16 6
3 (1.50:1.50) 1/8 1/8 1/16 1/16 4
4 (1.50:1.50) 1/16 1/16 1/8 1/16 1/16 5
5 (1.50:1.50) 1/16 1/16 1/16 1/16 1/8 5
6 (1.50:1.50) 1/8 1/16 1/16 1/16 1/16 5
7 (1.50:1.50) 1/8 1/16 1/16 1/8 4

UNITS (Disk 8):

1	1	2-3	c	C3-C5	0:1	10	u	80	12/14	c	cl 1,2	0	1/16, 9/16, 12/16
2	2	3	c	C3-C5	1:0	8	u	80	8/10	c	sl 3,4 sv 5,2	0	2/4
3	2	2-3	c	C3-C5	1:0	8	u	80	8/10	c	sl 3,4,5 sv 5,2,3	0	2/4
4	3	2-3	c	G3-G5	1:0	8	u	80	8/10	c	sl 4,6 sv 2,5	0	3/4
5	3	2-3	c	C3-C5	1:0	8	u	80	8/10	c	sl 4,5,6 sv 2,3,5	0	3/4
6	4	2-3	c	C3-C5	1:0	8	u	80	8/10	c	sl 4,7 sv 1,5	0	4/4
7	4	2-3	c	C3-C5	1:0	8	u	80	8/10	c	sl 4,5,7 sv 2,3,5	0	4/4
8	5	2-3	c	G3-G5	1:0	u	u	0	1/0	c	sl 4,7 sv 2,5	0	2/4, 3/4, 4/4
9	6	2-2	c	G3-G5	1:0	8	u	80	14/16	c	sl 9,10 sv 5,2	0	2/2, 3/2, 4/2
10	6	2-2	c	C3-C5	1:0	8	u	80	14/16	c	sl 9,10,11 sv 5,2,3	0	2/2, 3/2, 4/2
11	5	2-2	c	G3-G5	1:0	u	u	0	1/0	c	sl 9,10,11 sv 5,2,3	0	2/4, 3/4, 4/4
12	7	2-3	c	G3-G5	1:0	8	u	80	10/12	c	sl 12,13 sv 5,1	0	2/8, 4/8
13	7	2-2	c	G3-G5	1:0	8	u	80	10/12	c	sl 12,13,14 sv 5,1,3	0	2/8, 4/8
14	5	2-2	c	G3-G5	1:0	u	u	0	1/0	c	sl 12,13,14 sv 5,1,3	0	2/8, 4/8
15	8	2-3	c	G3-G5	1:0	8	u	80	10/12	c	sl 15,13 sv 5,1	0	3/8
16	8	2-3	c	G3-G5	1:0	8	u	80	10/12	c	sl 15,14,13 sv 5,3,1	0	3/8
17	5	2-3	c	G3-G5	1:0	u	u	0	1/0	c	sl 15,14,13 sv 5,3,1	0	3/8
18	9	2-3	c	G3-G5	1:0	7	u	80	12/14	c	sl 16	75%	2/4, 4/4
19	9	2-3	c	G3-G5	1:0	7	u	80	8/10	c	sl 17	75%	2/4, 4/4
20	10	2-3	c	G3-G5	1:0	7	u	80	10/12	c	sl 18	75%	3/4
21	10	2-2	c	G3-G5	1:0	7	u	80	8/10	c	sl 17,18	75%	3/4

											sv 2,1		
22	11	2-2	c	C3-C5	1:0	7	u	80	10/12	c	sl 17	75%	2/4, 3/4, 4/4
23	11	2-2	c	C3-C5	1:0	7	u	80	10/12	c	sl 17	75%	2/4, 3/4, 4/4
24	5	2-3	c	G3-G5	1:0	u	u	0	1/0	c	sl 17	75%	2/4, 3/4, 4/4
25	12	2-2	c	C3-C5	0:1	7	u	80	12/14	c	cl 19	100%	6/8, 9/8, 12/8
26	12	2-2	c	C3-C5	0:1	7	u	80	10/12	c	cl 19,20	75%	6/8, 9/8, 12/8
											cv 2,1		
27	5	2-2	c	G3-G5	0:1	u	u	0	1/0	c	cl 19,20	75%	6/8, 9/8, 12/8
28	13	2-3	c	C3-C5	1:0	7	u	80	12/14	c	sl 21	80%	2/2, 3/2, 4/2
29	13	2-2	c	C3-C5	1:0	7	u	80	10/12	c	sl 21,22	100%	2/2, 3/2, 4/2
											sv 2,1		
30	5	2-2	c	G3-G5	1:0	u	u	0	1/0	c	sl 21,22	80%	2/2, 3/2, 4/2
31	14	2-3	c	C3-C5	1:0	7	u	80	10/12	c	sl 23	80%	2/8, 4/8
32	14	2-3	c	C3-C5	1:0	7	u	80	8/10	c	sl 23,24	80%	2/8, 4/8
											sv 2,1		
33	5	2-3	c	G3-G5	1:0	u	u	0	1/0	c	sl 23,24	80%	2/8, 4/8
34	15	2-3	c	C3-C5	1:0	7	u	80	10/12	c	sl 25	80%	3/8
35	15	2-3	c	C3-C5	1:0	7	u	80	8/10	c	sl 25,26	80%	3/8
											sv 2,1		
36	5	2-3	c	G3-G5	1:0	u	u	0	1/0	c	sl 25,26	80%	3/8
37	16	2-3	c	C3-C5	0:1	7	u	80	10/12	c	cl 27	80%	6/4, 9/4, 12/4
38	16	2-3	c	C3-C5	0:1	7	u	80	8/10	c	sl 27,28	80%	6/4, 9/4, 12/4
											sv 2,1		
39	5	2-3	c	G3-G5	0:1	u	u	0	1/0	c	cl 27, 28	0	6/4, 9/4, 12/4

RHYTHM Disk 9

TITLES (Disk 9):

1 Test questions: Grade 1.
2 Test questions: Grade 2.
3 Test questions: Grade 3.
4 Test questions: Grade 4.
5 Test questions: Grade 5.
6 Test questions: Grade 6.
7 Test questions: Grade 7.
8 Test questions: Grade 8.

PATTERNS (Disk 9):

LIST 1
1 (2.00:2.00) 1/2 1
2 (1.00:1.00) 1/4 1
3 (3.00:3.00) 3/4 1

2
1 (2.00:2.00) 1/8 1/8 1/8 1/8 4
2 (2.00:2.00) 1/4 1/8 1/8 3
3 (2.00:2.00) 1/8 1/8 1/4 3

3
1 (1.00:1.00) 1/8 1/8 2
2 (3.00:3.00) 1/8 1/8 1/8 1/8 1/8 6

4
1 (1.00:1.00) 1/8 1/8 2
2 (1.00:1.00) 1/6 1/16 1/16 1/16 4

5
1 (1.00:1.00) 1/16 1/16 1/16 1/16 4

6
1 (4.00:4.00) 1/1 1

7
1 (1.00:1.00) 1/16 1/16 1/16 1/16 4
2 (1.00:1.00) 1/4 1
3 (1.00:1.00) 1/8 1/8 2

8
1 (1.50:1.50) 3/8 1
2 (1.50:1.50) 1/8 1/8 1/8 3
3 (1.50:1.50) 1/4 1/8 2

9
1 (2.00:2.00) 1/2 1
2 (2.00:2.00) 1/4 1/4 2
3 (4.00:4.00) 1/1 1

10
1 (2.00:2.00) 1/2 1
2 (1.00:1.00) 1/4 1

11
1 (1.00:1.00) 1/4 1

12
1 (1.00:1.00) 1/8 1/8 2

13
1 (1.00:1.00) 1/16 1/16 1/16 1/16 4

14
1 (4.00:4.00) 3/4 1/4 2
2 (4.00:4.00) 3/4 1/8 1/8 3
3 (4.00:4.00) 3/4 1/16 1/16 1/16 1/16 5

15
1 (1.00:100) 1/8 1/16 1/16 3
2 (1.00:1.00) 1/16 1/16 1/8 3

16
1 (1.00:1.50) 1/8 1/8 1/8 3

17
1 (2.00:2.00) 3/8 1/8 2

18
1 (3.00:3.00) 3/4 1

19
1 (1.00:1.00) r 1/4 1

20
1 (1.00:1.00) 3/16 1/16 2

21
1 (1.00:1.00) 1/4 1
2 (1.00:1.00) 1/8 1/8 2
3 (1.00:1.00) 1/16 1/16 1/16 1/16 4
4 (1.00:1.00) 1/8 1/16 1/16 3
5 (1.00:1.00) 1/16 1/16 1/8 3
6 (1.00:1.50) 1/8 1/8 1/8 3
7 (2.00:2.00) 3/8 1/8 2
8 (2.00:2.00) 3/8 1/16 1/16 3

22
1 (4.00:4.00) 1/4 1/4 r 1/2 3
2 (4.00:4.00) 1/2 r 1/2 2
3 (4.00:4.00) 1/8 1/8 1/8 1/8 r 1/2 5
4 (4.00:4.00) 1/8 1/8 1/4 r 1/2 4
5 (4.00:4.00) 1/4 1/8 1/8 r 1/2 4
6 (4.00:4.00) 1/4 1/16 1/16 1/16 1/16 r 1/2 6
7 (4.00:4.00) 1/16 1/16 1/16 1/16 1/4 r 1/2 6
8 (4.00:4.00) 3/8 1/8 r 1/2 3
9 (4.00:4.00) 1/4 3/16 1/16 r 1/2 4
10 (4.00:4.00) 3/16 1/16 1/4 r 1/2 4
11 (4.00:4.00) 1/8 1/16 1/16 1/4 r 1/2 5
12 (4.00:4.00) 1/16 1/16 1/8 1/4 r 1/2 5
13 (4.00:4.00) 1/4 1/8 1/16 1/16 r 1/2 5
14 (4.00:4.00) 1/4 1/16 1/16 1/8 r 1/2 5

23
1 (1.50:1.50) 1/8 1/8 1/16 1/16 4
2 (1.50:1.50) 1/8 1/16 1/16 1/8 4
3 (1.50:1.50) 1/16 1/16 1/8 1/8 4
4 (1.50:1.50) r 1/4 r 1/8 2

24
1 (2.00:2.00) 1/2 1
2 (1.00:1.00) 1/4 1
3 (1.00:1.00) 1/8 1/8 2
4 (1.00:1.00) 1/16 1/16 1/16 1/16 4

25
1 (3.00:3.00) 3/4 1

```
26      1 (4.00:4.00) 1/1 1

27      1 (1.00:1.00) r 1/8 1/8 2
        2 (1.00:1.00) r 1/8 1/16 1/16 3
        3 (1.00:1.00) 1/8 r 1/8 2
        4 (1.00:1.00) 1/16 1/16 r 1/8 3
        5 (2.00:2.00) 3/8 r 1/8 2

28      1 (2.00:2.00) 1/2 1
        2 (1.00:1.00) 1/4 1
        3 (3.00:3.00) 3/4 1
        4 (4.00:4.00) 1/1 1
        5 (1.00:1.00) r 1/4 1

29      1 (1.50:1.50) 1/16 1/16 1/16 1/16 1/16 1/16 6
        2 (1.50:1.50) 1/16 1/16 1/16 1/16 1/8 5
        3 (1.50:1.50) 1/8 1/16 1/16 1/16 1/16 5

30      1 (1.00:1.00) 3/16 1/16 2
        2 (1.00:1.50) 1/8 1/8 1/8 3
        3 (1.00:1.00) r 1/4 1

31      1 (4.00:4.00) r 1/2 1/4 1/4 3
        2 (4.00:4.00) r 1/2 1/4 1/8 1/8 4
        3 (4.00:4.00) r 1/2 1/8 1/8 1/8 1/8 5
        4 (4.00:4.00) r 1/2 1/16 1/16 1/16 1/16 1/8 1/
        5 (4.00:4.00) r 1/2 1/8 1/8 1/16 1/16 1/16 1/16 /
        6 (4.00:4.00) r 1/2 1/4 3/16 1/16 4
        7 (4.00:4.00) r 1/2 3/16 1/16 1/4 4
        8 (4.00:4.00) r 1/2 1/8 1/8 3/16 1/16 5
        9 (4.00:4.00) r 1/2 3/16 1/16 1/8 1/8 5
       10 (4.00:4.00) r 1/2 1/16 1/16 1/16 1/16 3/16 1/16 7
       11 (4.00:4.00) r 1/2 1/16 1/16 1/16 1/16 1/4 6
       12 (4.00:4.00) r 1/2 1/4 1/16 1/16 1/16 1/16 6

32      1 (4.00:4.00) 1/4 1/4 r 1/2 3
        2 (4.00:4.00) 1/4 1/8 1/8 r 1/2 4
        3 (4.00:4.00) 1/8 1/8 1/8 1/8 r 1/2 5
        4 (4.00:4.00) 1/16 1/16 1/16 1/16 1/8 1/8 r 1/2 7
        5 (4.00:4.00) 1/4 3/16 1/16 r 1/2 4
        6 (4.00:4.00) 1/8 1/8 1/   1/16 1/16 1/16 r 1/2 7
        7 (4.00:4.00) 3/16 1/16 1/   r 1/2 4
        8 (4.00:4.00) 1/8 1/8 3/   1/16 r 1/2 5
        9 (4.00:4.00) 3/16 1/16 1/8 1/8 r 1/2 5
       10 (4.00:4.00) 1/16 1/16 1/16 1/16 3/16 1/16 r 1/2 7
       11 (4.00:4.00) 1/16 1/16 1/16 1/16 1/4 r 1/2 6
       12 (4.00:4.00) 1/4 1/16 1/16 1/16 1/16 r 1/2 6

33      1 (4.00:4.00) 1/1 1
        2 (3.00:3.00) 3/4 1
        3 (2.00:2.00) 1/2 1
        4 (1.00:1.00) 1/4 1
```

```
        5 (1.00:1.00) 1/8 1/8 2
        6 (1.00:1.00) 1/16 1/16 1/16 1/16 4

34      1 (2.00:2.00) 1/2 1
        2 (1.00:1.00) 1/4 1
        3 (1.00:1.00) r 1/4 1

35      1 (3.00:3.00) 3/4 1

36      1 (4.00:4.00) 1/1 1

37      1 (1.00:1.00) 1/4 1

38      1 (1.00:1.00) 1/8 1/8 2

39      1 (1.50:1.50) r 1/4 r 1/8 2

40      1 (3.00:3.00) 3/4 1

41      1 (1.50:1.50) 3/8 1
        2 (1.50:1.50) 1/4 1/8 2
        3 (1.50:1.50) 1/8 1/8 1/8 3

42      1 (3.00:3.00) 3/4 1

43      1 (1.00:1.00) 1/16 1/16 1/16 1/16 4
        2 (1.00:1.50) 1/8 1/8 1/8 3

44      1 (1.00:1.00) 1/8 1/16 1/16 3
        2 (1.00:1.00) 1/16 1/16 1/8 3
        3 (1.00:1.00) 3/16 1/16 2
```

UNITS (Disk 9):

1	1	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 1	0	2/4, 3/4
2	1	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 9	0	4/4
3	1	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 1	0	2/4, 3/4
4	1	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 9	0	4/4
5	2	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 2,9 sv 2,1	0	4/4
6	2	2-2	c	G3-G5	1:0	5	3	80	10/11	c	sl 1,3	0	3/4
7	2	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 2,9 sv 2,1	0	4/4
8	2	2-2	c	G3-G5	1:0	5	3	80	10/11	c	sl 1,3	0	3/4
9		2-2	c	G3-G5	1:0	5	3	80	10/11	c	sl 4,10 sv 2,1	0	2/4
10	3	2-2	c	G3-G5	1:0	5	3	80	10/11	c	sl 1,3,5	0	3/4
11	3	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 11,12,13,14,6 sv 5,5,5,1,1	0	4/4
12	3	2-2	c	C3-C5	0:1	5	3	80	10/11	c	cl 8	0	6/8
13	4	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 7,15,16,17,10 sv 2,3,2,2,1	0	2/4

14	4	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 1,7,15,17 sv 1,2,3,1	0	3/4
15	4	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 1,6,7,15,17 sv 1,1,2,2,1	0	4/4
16	4	2-2	c	C3-C5	0:1	5	3	80	10/11	c	cl 8,18 cv 2,1	0	6/8
17	5	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 20,21,19	0	2/4
18	5	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 20,21,19,18 sv 2,5,1,1	0	3/4
19	5	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 21,20,19,22,180 sv 10,2,1,1,1,		4/4
20	5	2-2	c	C3-C5	0:1	5	3	80	10/11	c	cl 23,8,18 cv 3,2,1	0	6/8
21	5	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 24	0	2/2
22	5	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 24,25 sv 3,1	0	3/2
23	5	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 24,26 sv 3,1	0	4/2
24	6	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 21,27,20,19 sv 2,2,1,1	50%	2/4
25	6	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 1,21,20,19,27 sv 1,2,1,1,1	75%	3/4
26	6	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 21,20,28,22,275 sv 5,1,1,1,2	0%	4/4
27	6	2-2	c	C3-C5	0:1	5	3	80	10/11	c	cl 8,18,23,29 cv 2,1,2,2	0	6/8
28	6	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 24,30 sv 2,3	0	2/2
29	6	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 24,25,30 sv 2,1,3	0	3/2
30	6	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 33,30,313,32	0	4/2
31	6	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 34,37	0	2/8
32	6	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 34,35,37 sv 3,1,2	0	3/8
33	6	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 34,36,37 sv 3,1,2	0	4/8
34	7	2-2	c	C3-C5	0:1	5	3	80	10/11	c	cl 8,18,23,29 cv 3,1,3,3	75%	6/8
35	7	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 24,30	75%	2/2
36	7	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 24,25,30 sv 2,1,2	75%	3/2
37	7	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 33,30,31,32	75%	4/2
38	7	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 34,37,38	75%	2/8
39	7	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 34,35,37,38 sv 3,1,2,2	75%	3/8
40	7	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 34,36,37,38 sv 3,1,2,2	75%	4/8
41	7	2-2	c	C3-C5	0:1	5	3	80	10/11	c	cl 8,39 cv 3,1	0	9/8
42	7	2-2	c	C3-C5	0:1	5	3	80	10/11	c	cl 8,39,40 cv 3,1,1	0	12/8
43	7	2-2	c	C3-C5	0:1	5	3	80	10/11	c	cl 41,42	0	6/4

											cv 3,1		
44	7	2-2	c	G3-G5	0:1	5	3	80	10/11	c	cl 41	0	9/4
45	7	2-2	c	G3-G5	0:1	5	3	80	10/11	c	cl 41,42	0	12/4
											cv 3,1		
46	8	2-2	c	C3-C5	1:0	5	3	80	10/11	c	sl 34,37,38,43,44	75%	2/8

APPENDIX D. CAMETS SYLLABI

D.1 CAMETS SYLLABUS IN INTERVAL RECOGNITION

1. GRADE 1

Students will be required to recognise whether the 1st, 2nd, 3rd, 4th or 5th degree is played after the tonic of a major scale (N.B.: 2nd note played is <u>above</u> tonic).

Notes:

a. In grades 1 to 5 the student is only required to identify intervals of a major scale according to distance, i.e., 1, 2, 3, 4, etc., and not quality (perfect/major).

b. The student will be expected to identify intervals where the tonic stays the same as well as where each successive interval has a different tonic. However, the tonic will be confined to the pitch register of g to c (c = middle c, see below).

Requirements for grades 2 to 8 are paraphrased.

2. GRADE 2

Same requirements as for GRADE 1 but pitch register of tonic (in intervals on different tonics) is extended from G to d.

3. GRADE 3

Major scale: state which degree has been sounded after the tonic (from <u>doh</u> to <u>doh</u>^{1} ; interval <u>above</u> tonic; pitch register G to g).

4. GRADE 4

Same requirements as for GRADE 3 (pitch register: F to a).

5. GRADE 5

Major scale: state which degree has been played after tonic, either above or below tonic (range of one octave either way; pitch register: F to b).

6. GRADE 6

Harmonic minor scale: state which degree has been played after tonic, either above or below tonic (range of one octave either way; pitch register: Eb to e).

7. GRADE 7

a. Major and harmonic minor scale: recognition of any degree played after tonic (either above or below tonic).

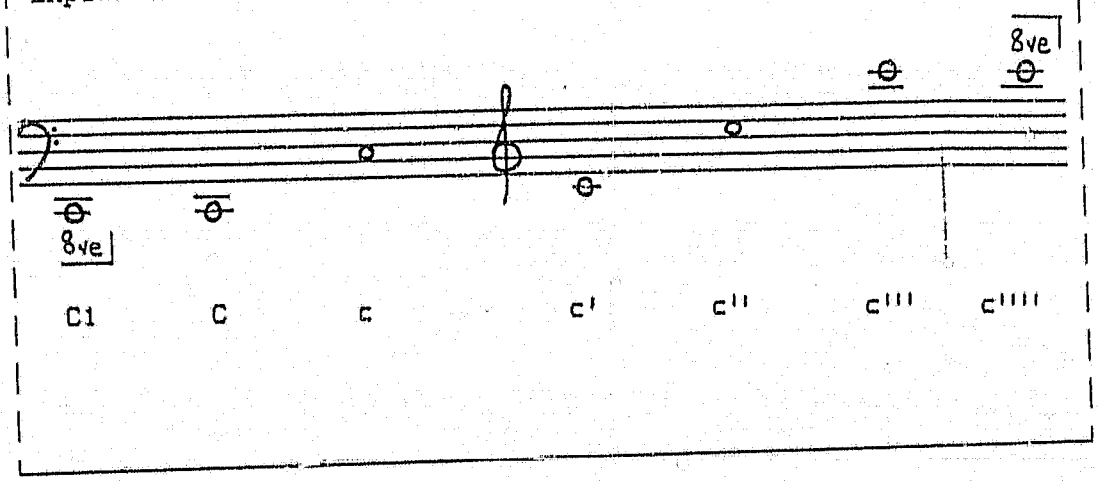
b. Addition of intervals: minor 2nd, tritone, minor 7th above tonic; pitch regi ter of tonic: C to a.

8. GRADE 8

Same requirements as for GRADE 7 plus: addition of intervals m2, Tritone, m7 above or below tonic; pitch register of tonic: Eb to a.

PITCH NAMES

Explanation of system used to indicate different octaves



D.2 CAMETS SYLLABUS IN RHYTHM DICTATION

C.A.M.E.T.S. SYLLABUS : RHYTHM DICTATION

time signature	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5	GRADE 6	GRADE 7	GRADE 8
2/4								
3/4								
4/4								
6/8								
2/2								
3/2								
4/2								
2/8								
3/8								
4/8								
9/8								
12/8								
6/4								
9/4								
12/4								
2/16								
3/16								
4/16								
6/16								
9/16								
12/16								

APPENDIX E. UNISA SYLLABUS IN PRACTICAL MUSICIANSHIP

It is noted that only the sections of the syllabus covering intervals and rhythm are specified.

GRADE 1

Candidates will be required to identify whether the 2nd, 3rd, 4th or 5th degrees have been played after the tonic.
Candidates may use the tonic solfa names. Only major keys will be given.

Candidates will be required to:

a) clap or tap easy and short rhythmical passages played twice by the examiner with well marked accent;

b) beat time to a musical passage mostly in crotchets, in simple duple or triple time.

GRADE 2

A note sounded on the pianoforte by the examiner being regarded as the tonic of a major scale, candidates will be required

a) to hum, sing or whistle any of the first 5 degrees of that scale, the tonic being sounded before each test

b) to identify as 2nd, 3rd, 4th, and 5th of the scale, any of these notes, as played by the examiner immediately after the tonic. Candidates may use the tonic solfa names.

Candidates will be required:

a) to clap or tap a simple rhythmical passage played twice by the examiner;

b) to indicate whether a passage is in duple or triple time, beating time whilst it is being played a second time by the examiner.

I have paraphrased requirements for grades 3 - 6.

GRADE 3

Intervals

Major scale: a) hum, sing or whistle any degree after tonic is sounded.
b) state which degree has been sounded after the tonic (i.e. doh to doh^1).

Rhythm

a) clap or tap a simple rhythmical passage played twice.

b) indicate whether in duple or triple time and beat time whilst passage is played for the second time.

GRADE 4

Exactly the same requirements as for GRADE 3

GRADE 5

Intervals

Major scale: a) after tonic is sounded, candidate is required to sing any degree above or below the tonic.

b) state which degree has been played either above or below the tonic.

Rhythm

a) recognize whether passage is in duple, triple or quadruple time and beat time whilst passage is played a second time.

b) name the note values of 1 or 2 bars from the same passage. Note values limited to crotchets and quavers.

GRADE 6

Intervals

Harmonic minor scale: a) sing any degree above or below tonic after tonic is sounded.

b) state which degree has been played (after tonic) either above or below tonic.

Rhythm

a) recognize whether passage is in duple, triple or quadruple time and beat time whilst passage is played a second time.

b) name the note values of 1 or 2 bars from the same passage. Note values limited to crotchets, quavers and semiquavers.

In Grades 7 and 8 the candidate is not required to identify intervals as such, but to identify chords as major or minor, as well as to sight-sing short melodies, etc.

GRADE 7

Rhythm

Candidates will be required:

a) to recognize whether a passage is in duple, triple or quadruple time, and to beat time whilst the passage is played a second time. Simple or compound beat units will be used;

b) to name the note values of one or two bars from the same passage. The note values will not be longer than a minim or shorter than a semiquaver. Dotted minims, crotchets and quavers may be included.

GRADE 8

Rhythm

Candidates will be required:

a) to name note values (dotted and undotted) in a short major or minor phrase played by the examiner. The beat unit will be given;

b) to give the letter names of the same phrase (or a section thereof) as it is slowly repeated. The tonic will be played and named.

APPENDIX F. CAMETS GRADE TESTS

1. CAMETS grade tests in Interval Recognition and Rhythm Dictation (grades 1 to 8)

2. CAMETS grade test papers

3. Instructions for examiner administering the CAMETS grade tests

COMPUTER ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

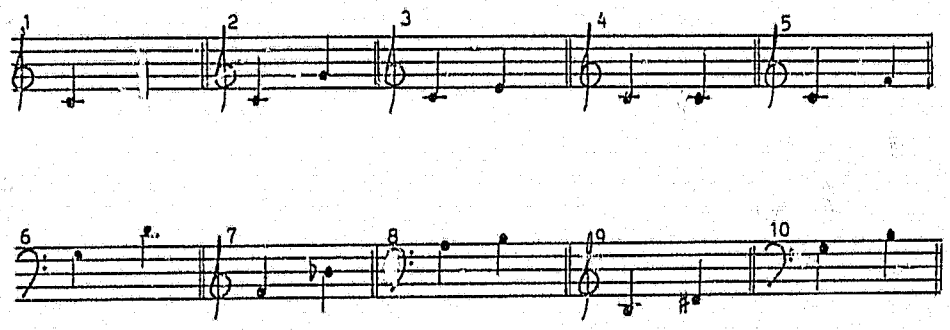
TEST: GRADE
TOETS: GRAAD 1

NB: Enter your name on the test paper

QUESTION/VRAAG A : Interval recognition

Instructions for examiner (see accompanying notes):

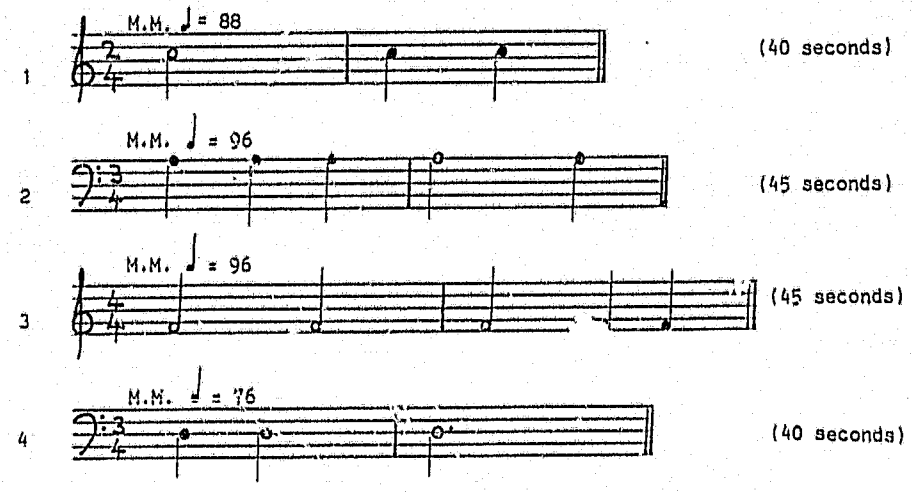
1. Each interval to be played at approx. M.M. ♩ = 50.
2. Play each interval twice (wait 3 - 5 seconds between each playing).
3. Time limit: 10 seconds (from end of first playing).



QUESTION/VRAAG B : Rhythm Dictation

Instructions for examiner (see accompanying notes):

1. Metronome speeds are given for each rhythm.
2. Play each rhythm three times.
3. Time limit: given at end of each rhythm (imposed after first playing of rhythm is completed).



COMPUTER ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

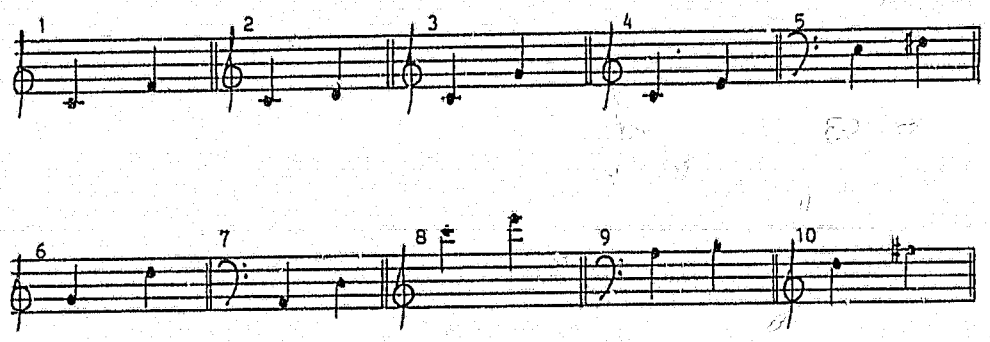
TEST: GRADE 2
TOETS: GRAAD

NB: Enter your name on the test paper

QUESTION/VRAAG A : Interval recognition

Instructions for examiner (see accompanying notes):

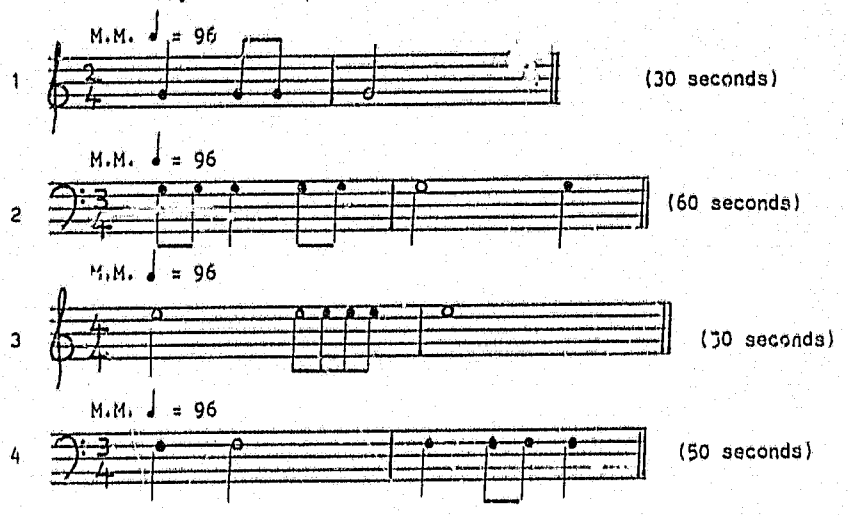
1. Each interval to be played at approx. M.M. ♩ = 76.
2. Play each interval twice (wait 3 - 5 seconds between each playing).
3. Time limit: 10 seconds (from end of first playing).



QUESTION/VRAAG B : Rhythm Dictation

Instructions for examiner (see accompanying notes):

1. Metronome speeds are given for each rhythm.
2. Play each rhythm three times.
3. Time limit: given at end of each rhythm (imposed after first playing of rhythm is completed).



COMPUTER ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

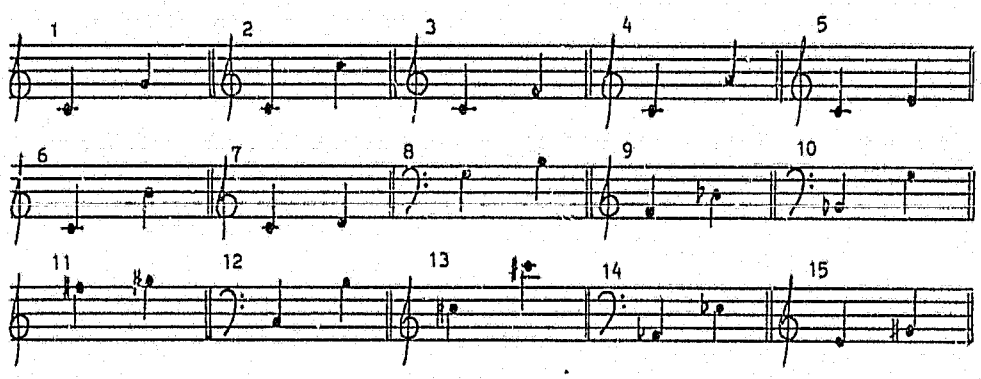
TEST GRADE
TOETS GRAAD 3

NB: Enter your name on the test paper

QUESTION/VRAAG A : Interval recognition

Instructions for examiner (see accompanying notes):

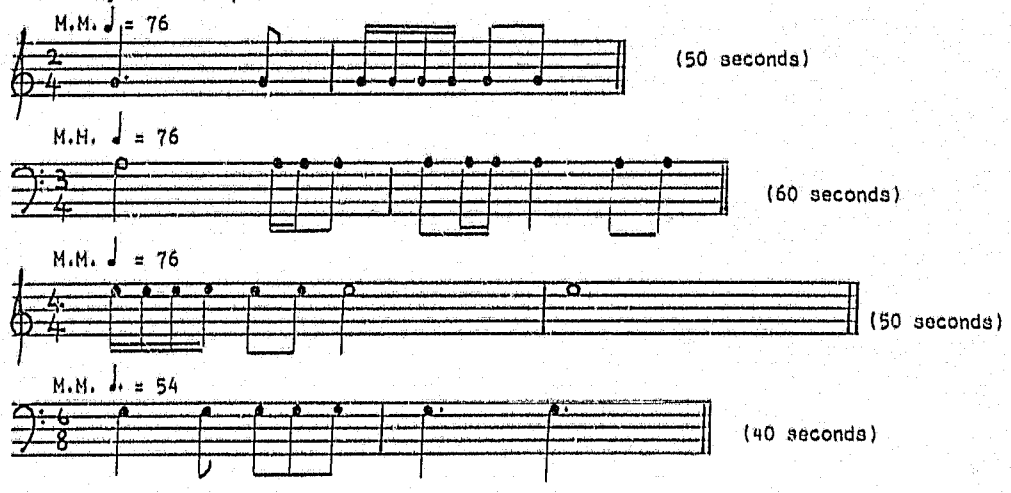
1. Each interval to be played at approx. M.M. ♩ = 76.
2. Play each interval twice (wait 3 - 5 seconds between each playing).
3. Time limit: 10 seconds (from end of first playing).



QUESTION/VRAAG B : Rhythm Dictation

Instructions for examiner (see accompanying notes):

1. Metronome speeds are given for each rhythm.
2. Play each rhythm three times.
3. Time limit: given at end of each rhythm (imposed after first playing of rhythm is completed).



COMPUTER ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

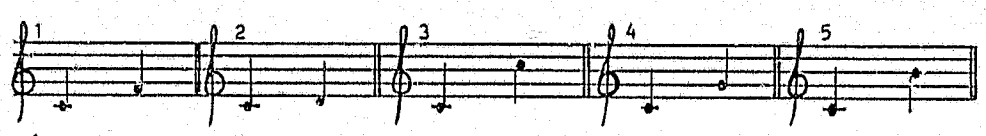
TEST: GRADE 4
TOETS: GRAAD

NB: Enter your name on the test paper

QUESTION/VRAAG A : Interval recognition

Instructions for examiner (see accompanying notes):

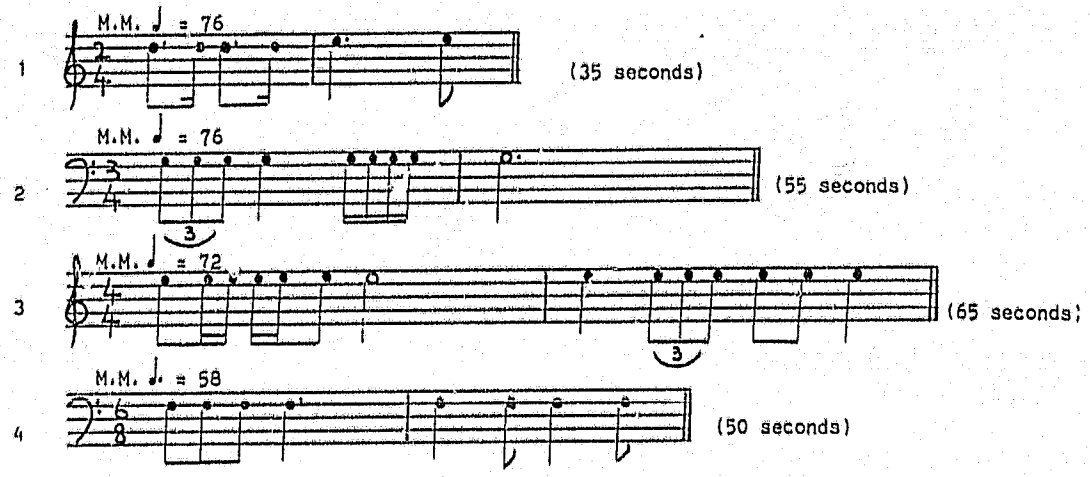
1. Each interval to be played at approx. M.M. ♩ = 76.
2. Play each interval twice (wait 3 - 5 seconds between each playing).
3. Time limit: 10 seconds (from end of first playing).



QUESTION/VRAAG B : Rhythm Dictation

Instructions for examiner (see accompanying notes):

1. Metronome speeds are given for each rhythm.
2. Play each rhythm three times.
3. Time limit: given at end of each rhythm (imposed after first playing of rhythm is completed).



COMPUTER ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

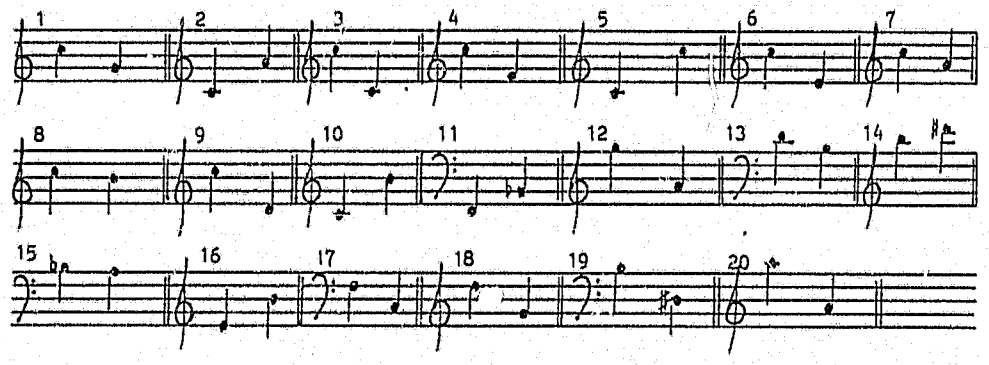
TEST: GRADE
TOETS: GRAAD

NB: Enter your name on the test paper

QUESTION/VRAAG A : Interval recognition

Instructions for examiner (see accompanying notes):

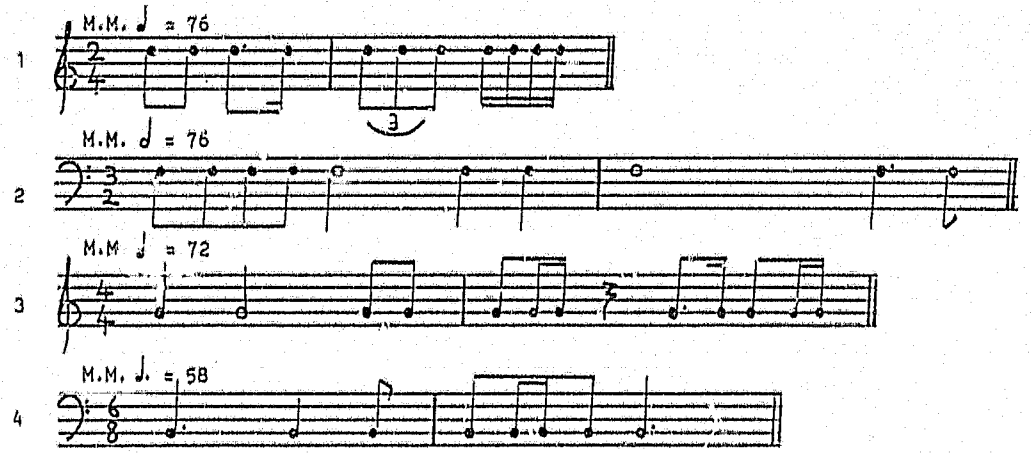
1. Each interval to be played at approx. M.M. ♩ = 76.
2. Play each interval twice (wait 3 - 5 seconds between each playing).
3. Time limit: 10 seconds (from end of first playing).



QUESTION/VRAAG B : Rhythm Dictation

Instructions for examiner (see accompanying notes):

1. Metronome speeds are given for each rhythm.
2. Play each rhythm three times.
3. Time limit: given at end of each rhythm (imposed after first playing of rhythm is completed).



COMPUTER ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

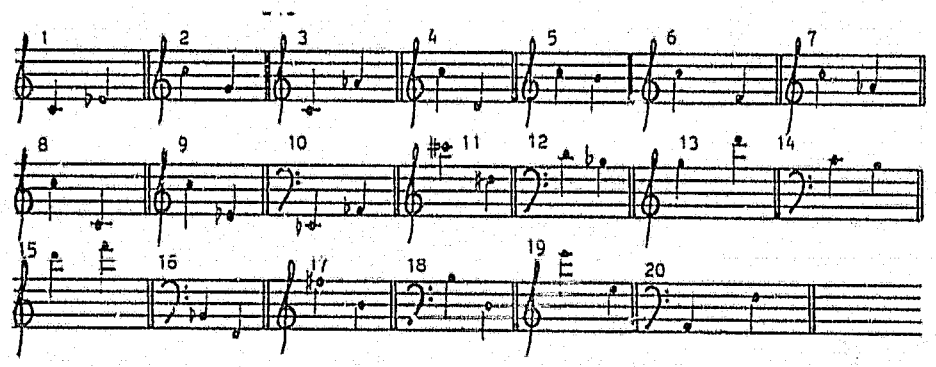
TEST: GRADE
TOETS: GRAAD 6

NB: Enter your name on the test paper

QUESTION/VRAAG A : Interval recognition

Instructions for examiner (see accompanying notes):

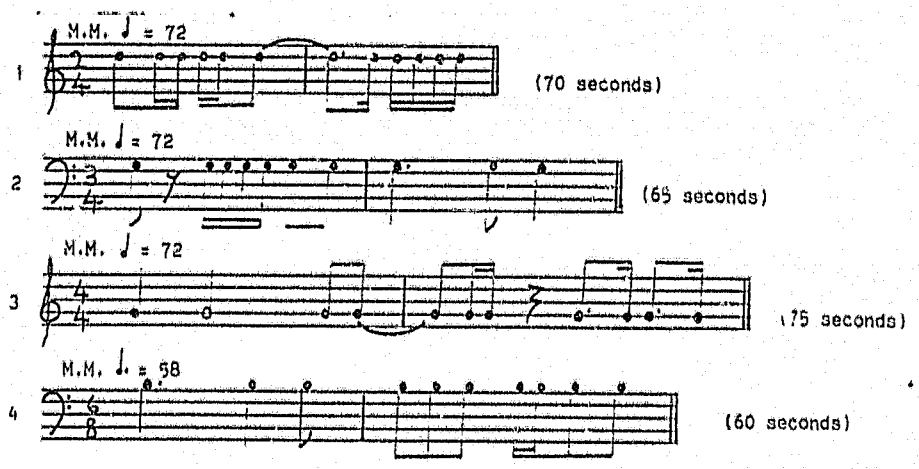
1. Each interval to be played at approx. M.M. ♩ = 76.
2. Play each interval twice (wait 3 - 5 seconds between each playing).
3. Time limit: 10 seconds (from end of first playing).



QUESTION/VRAAG B : Rhythm Dictation

Instructions for examiner (see accompanying notes):

1. Metronome speeds are given for each rhythm.
2. Play each rhythm three times.
3. Time limit: given at end of each rhythm (imposed after first playing of rhythm is completed).



COMPUTER ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

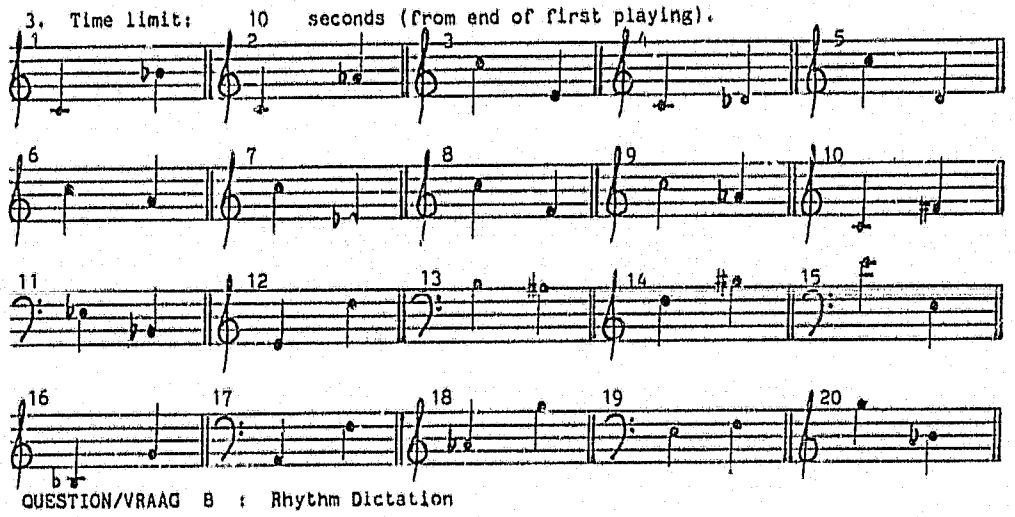
TEST: GRADE 7
TOETS: GRAAD

NB: Enter your name on the test paper

QUESTION/VRAAG A : Interval recognition

Instructions for examiner (see accompanying notes):

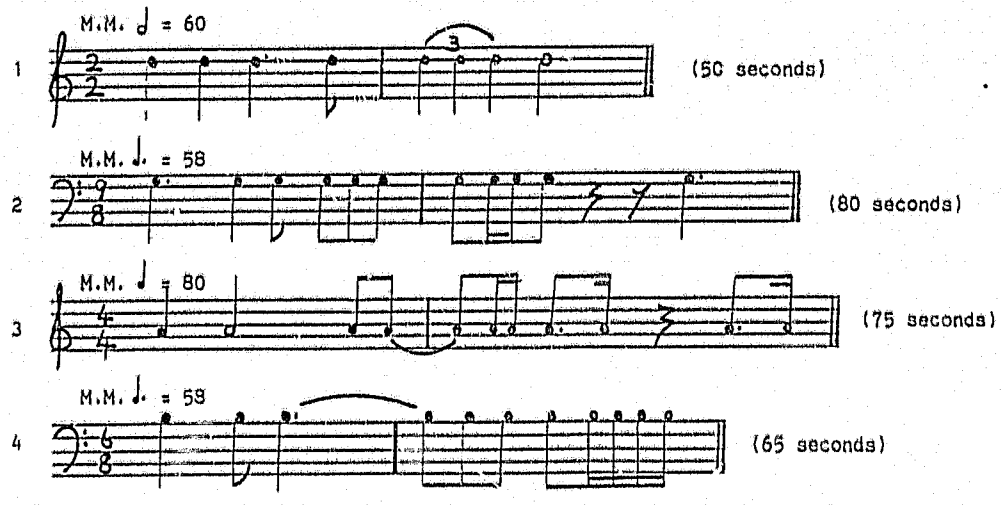
1. Each interval to be played at approx. M.M. ♩ = 76.
2. Play each interval twice (wait 3 - 5 seconds between each playing).
3. Time limit: 10 seconds (from end of first playing).



QUESTION/VRAAG B : Rhythm Dictation

Instructions for examiner (see accompanying notes):

1. Metronome speeds are given for each rhythm.
2. Play each rhythm three times.
3. Time limit: given at end of each rhythm (imposed after first playing of rhythm is completed).



COMPUTER ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

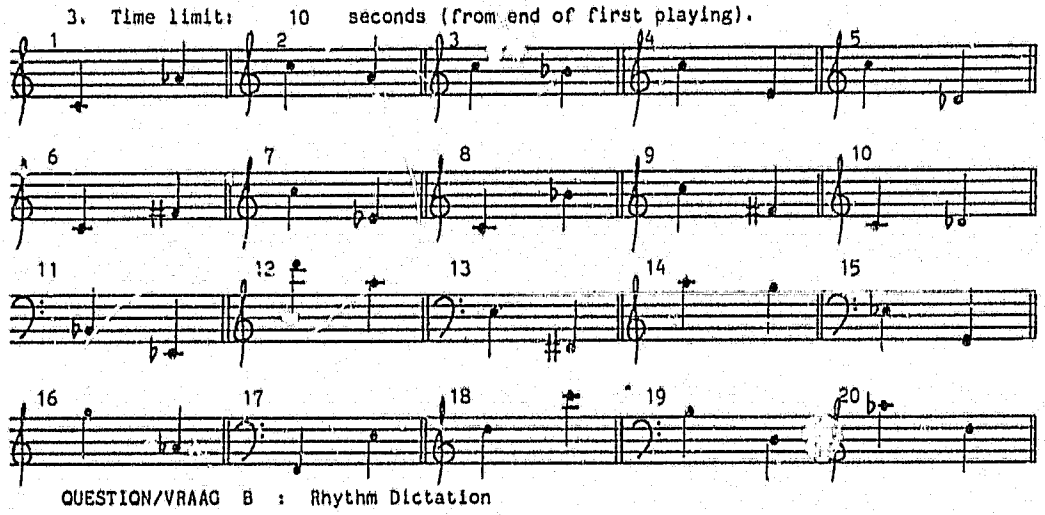
TEST: GRADE
TOETS: GRAAD 8

NB: Enter your name on the test paper

QUESTION/VRAAG A : Interval recognition

Instructions for examiner (see accompanying notes):

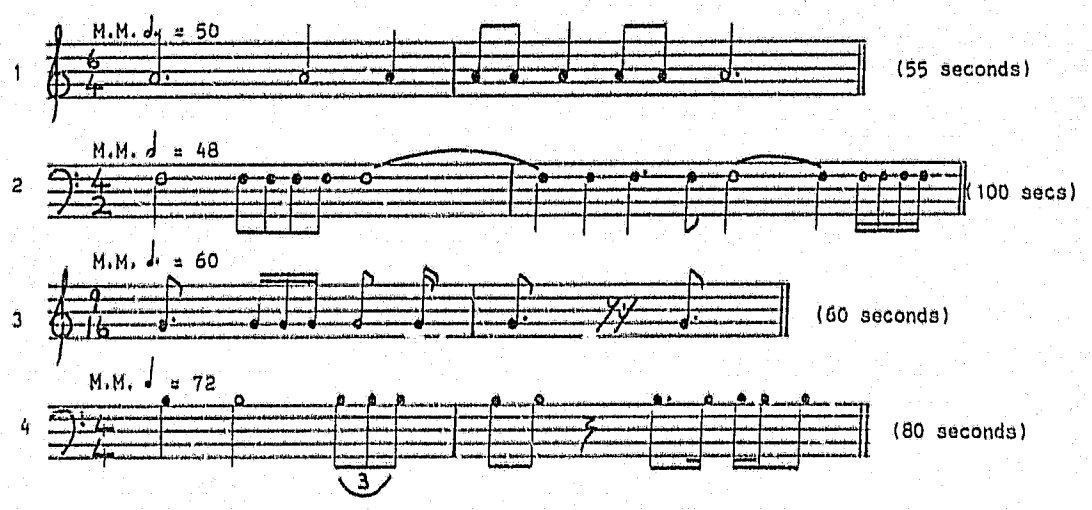
1. Each interval to be played at approx. M.M. ♩ = 76.
2. Play each interval twice (wait 3 - 5 seconds between each playing).
3. Time limit: 10 seconds (from end of first playing).



QUESTION/VRAAG B : Rhythm Dictation

Instructions for examiner (see accompanying notes):

1. Metronome speeds are given for each rhythm.
2. Play each rhythm three times.
3. Time limit: given at end of each rhythm (imposed after first playing of rhythm is completed).



COMPUTER-ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

TEST : GRADE 1
TOETS : GRAAD

NAME/NAAM (Please print/Gebruik blokletters): .....

QUESTION A / VRAAG A

Identify the following intervals of a major scale by marking the appropriate number with a circle. The first note played by the examiner is always '1' (doh or tonic).

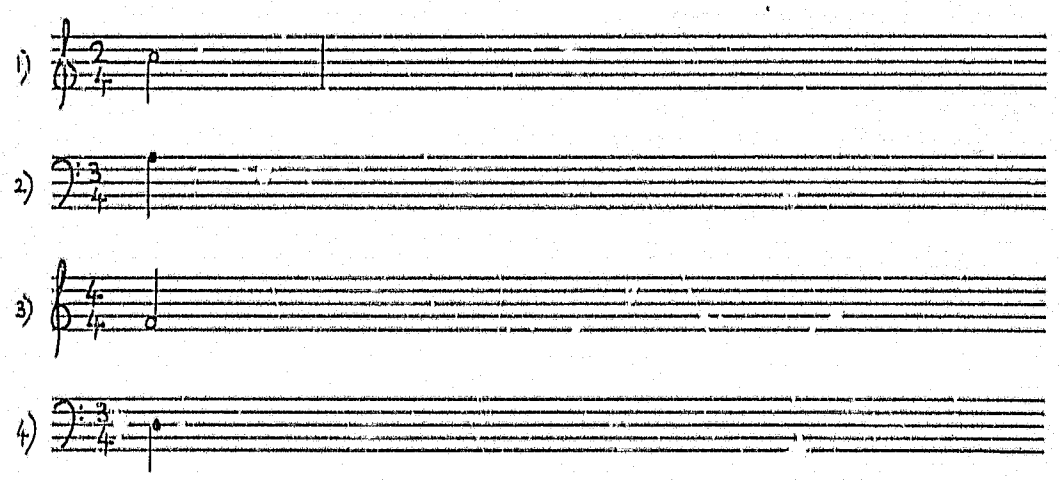
Identifiseer die volgende intervalle van 'n majeur toonleer deur die toepaslike nommer te omsirkel. Die eerste noot gespeel is altyd '1' (doh of tonika).

1.	1 doh	2 re	3 mi	4 fah	5 soh		6.	1 doh	2 re	3 mi	4 fah	5 soh
2.	1 doh	2 re	3 mi	4 fah	5 soh		7.	1 doh	2 re	3 mi	4 fah	5 soh
3.	1 doh	2 re	3 mi	4 fah	5 soh		8.	1 doh	2 re	3 mi	4 fah	5 soh
4.	1 doh	2 re	3 mi	4 fah	5 soh		9.	1 doh	2 re	3 mi	4 fah	5 soh
5.	1 doh	2 re	3 mi	4 fah	5 soh		10.	1 doh	2 re	3 mi	4 fah	5 soh

QUESTION B / VRAAG B

Complete the following rhythms. Each lasts for two bars. The time signature and first beat of each question is given.

Voltooi die volgende ritmes. Elke ritme is twee mate in lengte. Die tydmaatteken en eerste slag van elke vraag is gegee.



COMPUTER-ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

TEST : GRADE 2
TOETS : GRAAD
NAME/NAAM (Please print/Gebruik blokletters): .....

QUESTION A / VRAAG A

Identify the following intervals of a major scale by marking the appropriate number with a circle. The first note played by the examiner is always '1' (doh or tonic).

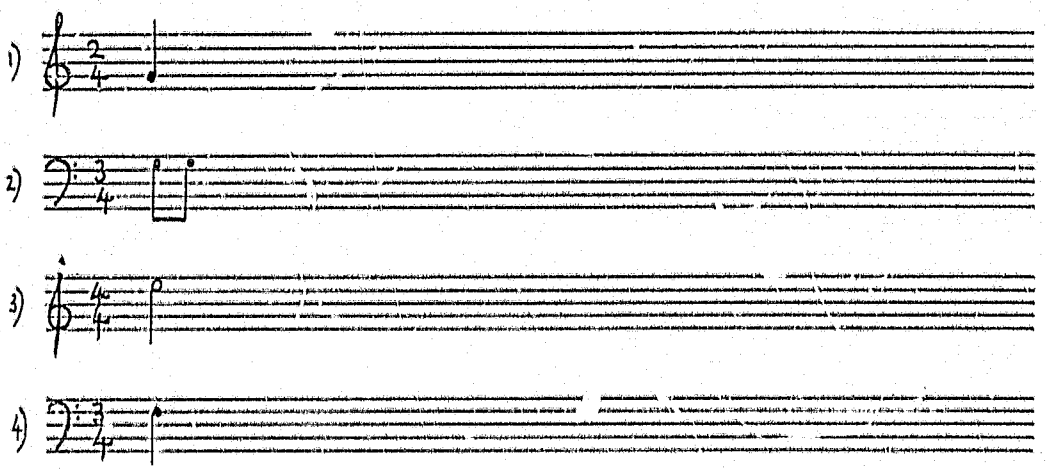
Identifiseer die volgende intervalle van 'n majeur toonleer deur die toepaslike nommer te omsirkel. Die eerste noot gespeel is altyd '1' (doh of tonika).

1.	1 doh	2 re	3 mi	4 fah	5 soh		6.	1 doh	2 re	3 mi	4 fah	5 soh
2.	1 doh	2 re	3 mi	4 fah	5 soh		7.	1 doh	2 re	3 mi	4 fah	5 soh
3.	1 doh	2 re	3 mi	4 fah	5 soh		8.	1 doh	2 re	3 mi	4 fah	5 soh
4.	1 doh	2 re	3 mi	4 fah	5 soh		9.	1 doh	2 re	3 mi	4 fah	5 soh
5.	1 doh	2 re	3 mi	4 fah	5 soh		10.	1 doh	2 re	3 mi	4 fah	5 soh

QUESTION B / VRAAG B

Complete the following rhythms. Each lasts for two bars. The time signature and first beat of each question is given.

Voltooi die volgende ritmes. Elke ritme is twee mate in lengte. Die tydmaatteken en eerste slag van elke vraag is gegee.



COMPUTER-ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

TEST : GRADE 3
TOETS : GRAAD

NAME/NAAM (Please print/Gebruik blokletters): .....

QUESTION A / VRAAG A

Identify the following intervals of a major scale by marking the appropriate number with a circle. The first note played by the examiner is always '1' (doh or tonic).

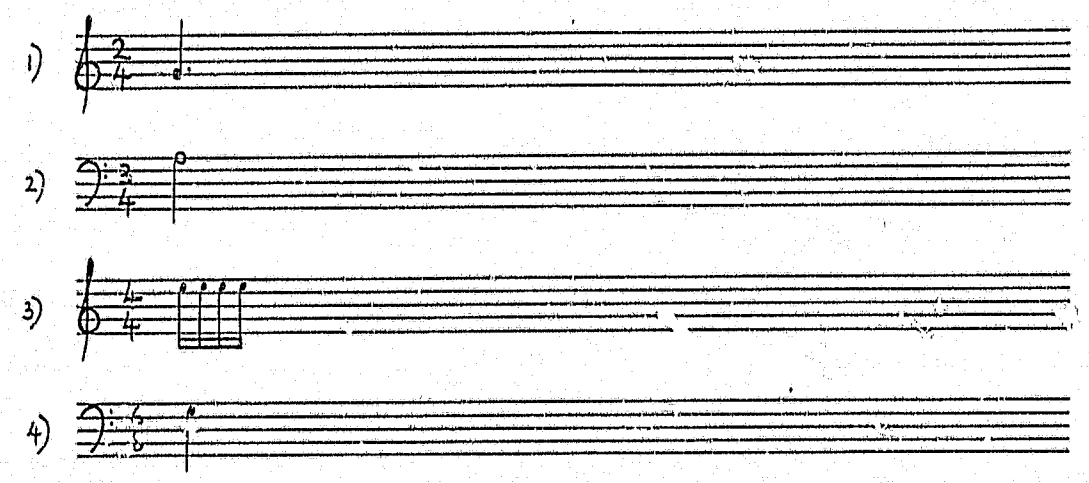
Identifiseer die volgende intervalle van 'n majeur toonleer deur die toepaslike nommer te omsirkel. Die eerste noot gespeel is altyd '1' (doh of tonika).

1.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1	9.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
2.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1	10.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
3.	1 doh	2 re	3 ti	4 fah	5 soh	6 la	7 ti	8 doh^1	11.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
4.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1	12.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
5.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1	13.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
6.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1	14.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
7.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1	15.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
8.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1									

QUESTION B / VRAAG B

Complete the following rhythms. Each lasts for two bars. The time signature and first beat of each question is given.

Voltooi die volgende ritmes. Elke ritme is twee mate in lengte. Die tydmaatteken en eerste slag van elke vraag is gegee.



COMPUTER-ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

TEST : GRADE 4
TOETS : GRAAD

NAME/NAAM (Please print/Gebruik blokletters): .....

QUESTION A / VRAAG A

Identify the following intervals of a major scale by marking the appropriate number with a circle. The first note played by the examiner is always '1' (doh or tonic).

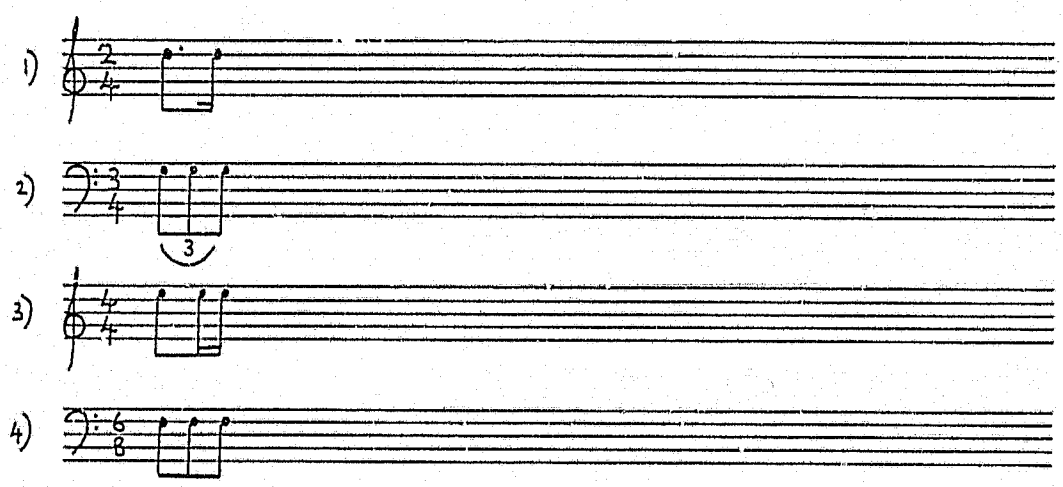
Identifiseer die volgende intervalle van 'n majeur toonleer deur die toepaslike nommer te omsirkel. Die eerste noot gespeel is altyd '1' (doh of tonika).

1.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
2.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
3.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
4.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
5.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
6.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
7.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
8.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
9.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
10.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
11.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
12.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
13.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
14.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1
15.	1 doh	2 re	3 mi	4 fah	5 soh	6 la	7 ti	8 doh^1

QUESTION B / VRAAG B

Complete the following rhythms. Each lasts for two bars. The time signature and first beat of each question is given.

Voltooi die volgende ritmes. Elke ritme is twee mate in lengte. Die tydmaatteken en eerste slag van elke vraag is gegee.



COMPUTER-ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

TEST : GRADE
TOETS : GRAAD 5

NAME/NAAM (Please print/Gebruik blokletters): .....

QUESTION A / VRAAG A

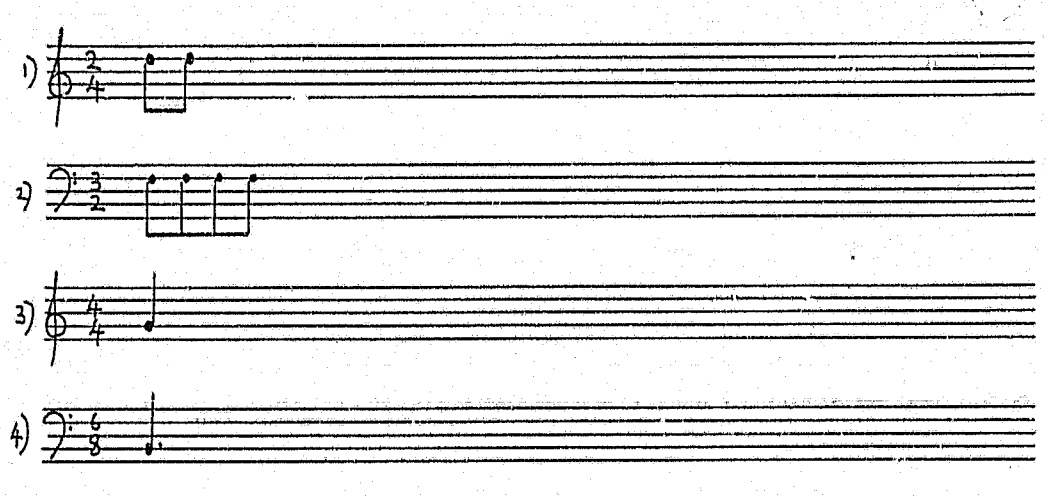
Identify the following intervals of the major scale by marking the appropriate number with a circle. In the case of ascending intervals, the first note played is always '1' (doh or tonic). In the case of descending intervals, the first note played is always '1' (doh or tonic). Indicate whether the interval is ascending or descending by ticking the box [above] or [below] for each question.

Identifiseer die volgende intervalle van die majeur toonleer deur die toepaslike nommer te omsirkel. As die interval opgaande is, is die eerste noot wat gespeel word altyd '1' (doh of tonika). As die interval afgaande is, is die eerste noot wat gespeel word altyd doh. Dui aan of die interval opgaande of afgaande is vir elke vraag - merk die blokkie [bo] of [onder].

1.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]	11.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]
	doh	re	mi	fah	soh	la	ti	doh			doh	re	mi	fah	soh	la	ti	doh	
2.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]	12.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]
	doh	re	mi	fah	soh	la	ti	doh			doh	re	mi	fah	soh	la	ti	doh	
3.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]	13.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]
	doh	re	mi	fah	soh	la	ti	doh			doh	re	mi	fah	soh	la	ti	doh	
4.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]	14.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]
	doh	re	mi	fah	soh	la	ti	doh			doh	re	mi	fah	soh	la	ti	doh	
5.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]	15.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]
	doh	re	mi	fah	soh	la	ti	doh			doh	re	mi	fah	soh	la	ti	doh	
6.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]	16.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]
	doh	re	mi	fah	soh	la	ti	doh			doh	re	mi	fah	soh	la	ti	doh	
7.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]	17.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]
	doh	re	mi	fah	soh	la	ti	doh			doh	re	mi	fah	soh	la	ti	doh	
8.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]	18.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]
	doh	re	mi	fah	soh	la	ti	doh			doh	re	mi	fah	soh	la	ti	doh	
9.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]	19.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]
	doh	re	mi	fah	soh	la	ti	doh			doh	re	mi	fah	soh	la	ti	doh	
10.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]	20.	1	2	3	4	5	6	7	8	[above/bo] [below/onder]
	doh	re	mi	fah	soh	la	ti	doh			doh	re	mi	fah	soh	la	ti	doh	

QUESTION B / VRAAG B

Complete the following rhythms. Each lasts for two bars. The time signature and first beat of each question is given./Voltooi die volgende ritmes. Elke ritme is twee mate in lengte. Die tydmaat-teken en eerste slag van elke vraag is gegee.



COMPUTER-ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

TEST : GRADE
TOETS : GRAAD 6

NAME/NAAM (Please print/Gebruik blokletters): .....

QUESTION A / VRAAG A

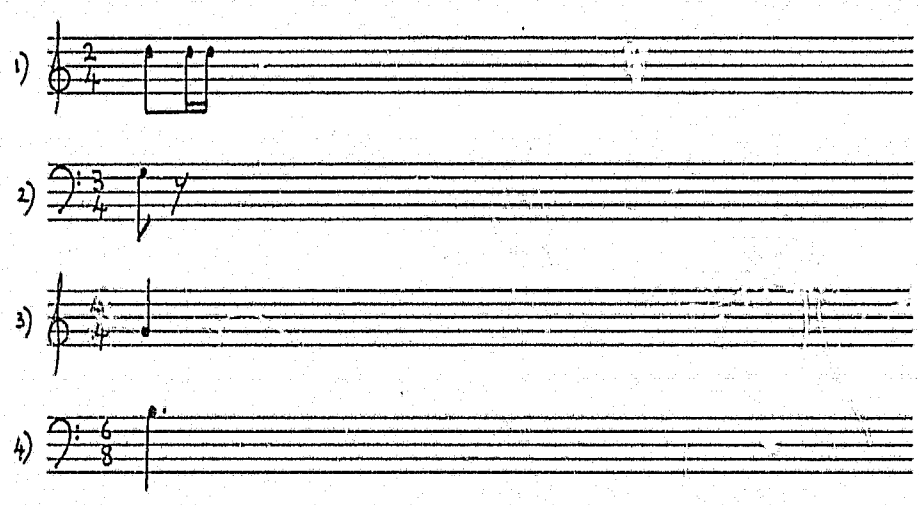
Identify the following intervals of the harmonic minor scale by marking the appropriate number with a circle. In the case of ascending intervals, the first note played is always '1' (doh or tonic). In the case of descending intervals, the first note played is always '1' (doh or tonic). Indicate whether the interval is ascending or descending by ticking the box [above] or [below] for each question.
Identifiseer die volgende intervalle van die harmonies mineur toonleer deur die toepaslike nommer te omsirkel. As die interval opgaande is, is die eerste noot wat gespeel word altyd '1' (doh of tonika). As die interval afgaande is, is die eerste noot wat gespeel word altyd doh. Dui aan of die interval opgaande of afgaande is vir elke vraag - merk die blokkie [bo] of [onder].

M = Major/Majeur m = minor/mineur P = Perfect/Volmaakte

1.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder	11.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder
2.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder	12.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder
3.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder	13.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder
4.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder	14.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder
5.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder	15.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder
6.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder	16.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder
7.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder	17.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder
8.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder	18.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder
9.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder	19.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder
10.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder	20.	P1	M2	m3	P4	P5	m6	M7	P8	above/bo / below/onder

QUESTION B / VRAAG B

Complete the following rhythms. Each lasts for two bars. The time signature and first beat of each question is given. / Voltooi die volgende ritmes. Elke ritme is twee mate in lengte. Die tydmaat-teken en eerste slag van elke vraag is gegee.



COMPUTER-ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

TEST : GRADE 7
TOETS : GRAAD
NAME/NAAM (Please print/Gebruik blokletters): .....

QUESTION A / VRAAG A

Identify the following intervals of the major and harmonic minor scales. In the case of ascending intervals, the first note played is always '1' (doh or tonic). In the case of descending intervals, the first note played is always '1' (doh or tonic). Indicate whether the interval is ascending or descending by ticking the box [above] or [below] for each question. Additional intervals of minor second (m2), Tritone (augmented 4th or diminished 5th) and minor 7th (m7) will be given in ascending form only (that is, above the tonic).

Identifiseer die volgende intervalle van die majeur en harmonies mineur toonlere deur die toepaslike nommer te omsirkel. As die interval opgaande is, is die eerste noot wat gespeel word altyd '1' (doh of tonika). As die interval afgaande is, is die eerste noot wat gespeel word altyd doh. Dui aan of die interval opgaande of afgaande is vir elke vraag - merk die blokkie [bo] of [onder]. Addisionele intervalle - mineur twede (m2), Tritone (verminderde vyfde) en mineur sewende (m7) sal gegee word net as opgaande intervalle (d.w.s. bo die tonika).

M = Major/Majeur m = minor/mineur P = Perfect/Volmaakte

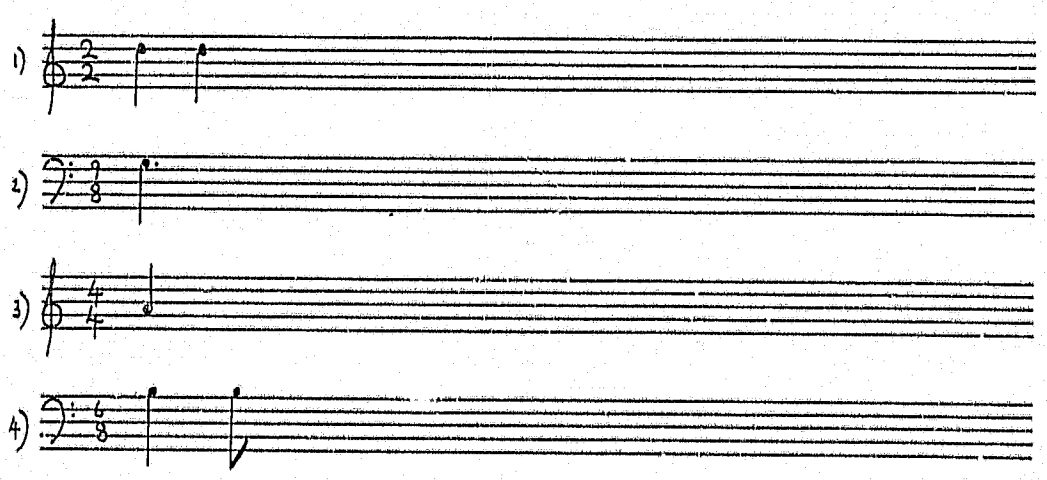
1.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
2.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
3.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
4.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
5.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
6.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
7.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
8.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
9.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
10.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder

11.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
12.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
13.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
14.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
15.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
16.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
17.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
18.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
19.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
20.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder

QUESTION B / VRAAG B

Complete the following rhythms. Each lasts for two bars. The time signature and first beat of each question is given.

Voltooi die volgende ritmes. Elke ritme is twee mate in lengte. Die tydmaat-teken en eerste slag van elke vraag is gegee.



COMPUTER-ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

TEST : GRADE
TOETS : GRAAD 8

NAME/NAAM (Please print/Gebruik blokletters): .....

QUESTION A / VRAAG A

Identify the following intervals of the major and harmonic minor scales. In the case of ascending intervals, the first note played is always '1' (doh or tonic). In the case of descending intervals, the first note played is always '1' (doh or tonic). Indicate whether the interval is ascending or descending by ticking the box [above] or [below] for each question. Additional intervals of minor second (m2), tritone (augmented 4th or diminished 5th) and minor 7th (m7) will be given in both ascending and descending forms.

Identifiseer die volgende intervalle van die majeur en harmonies mineur toonlere deur die toepaslike nommer te omsirkel. As die interval opgaande is, is die eerste noot wat gespeel word altyd '1' (doh of tonika). As die interval afgaande is, is die eerste noot wat gespeel word altyd doh. Dui aan of die interval opgaande of afgaande is vir elke vraag - merk die blokkie [bo] of [onder]. Addisionele intervalle - mineur twede (m2), Tritone (verminderde vyfde) en mineur sewende (m7) sal gegee word in opgaande en afgaande vorm.

M = Major/Majeur m = minor/mineur P = Perfect/Volmaakte

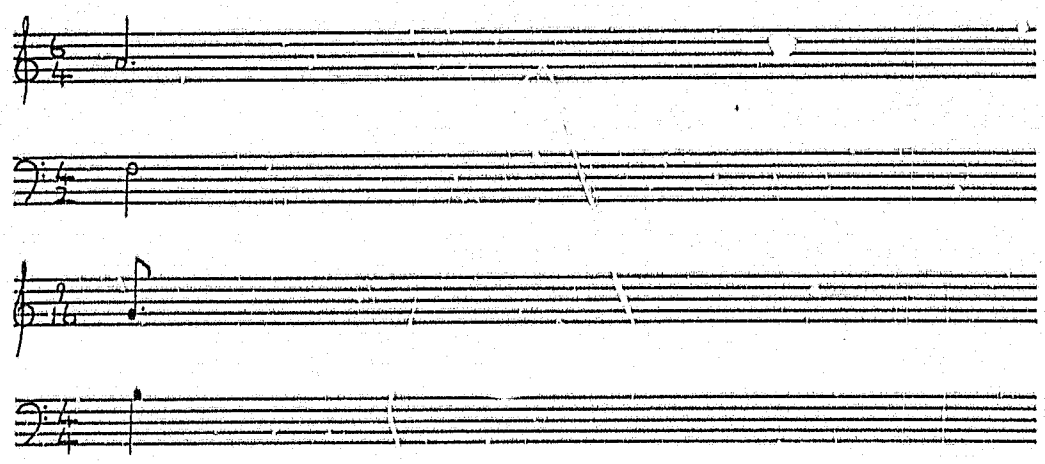
1.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
2.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
3.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
4.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
5.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
6.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
7.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
8.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
9.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder
10.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo below/onder

11.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
12.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
13.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
14.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
15.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
16.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
17.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
18.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
19.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder
20.	P1	m2	M2	m3	M3	P4	Tritone	P5	m6	M6	m7	M7	P8	above/bo / below/onder

QUESTION 8 / VRAAG 8

Complete the following rhythms. Each lasts for two bars. The time signature and first beat of each question is given.

Voltooi die volgende ritmes. Elke ritme is twee mate in lengte. Die tydmaat-teken en eerste slag van elke vraag is gegee.



COMPUTER-ASSISTED MUSIC EAR-TRAINING STUDY (C.A.M.E.T.S.)

Instructions for examiner administering the CAMETS grade tests in interval recognition and rhythm dictation.

SECTION A : Explanation to students doing grade tests : Interval Recognition

SECTION B : Explanation to students doing grade tests : Rhythm Dictation

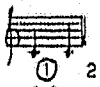
SECTION C : Metronome markings, number of playings, time limit, etc.

SECTION D : Scheme of marking i) Intervals
ii) Rhythms
iii) Pass mark

SECTION A : Explanation by examiner to students doing CAMETS grade tests:
Interval Recognition

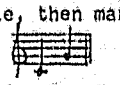
A1. Grade 1 (Intervals)

The numbers 1 to 5 are the first five degrees (notes) of a major scale. The first note played by me is the tonic or first degree of the scale (that is, doh or 1). Listen carefully to the second note played after doh. It will be either the tonic (doh) again or the second, third, fourth or fifth note of the major scale (that is, it may sound higher than doh). If you think that the second note played by the examiner sounds the same as the first note, then mark '1' with a circle like this:

Play first at piano 

Example a ① 2 3 4 5 (on blackboard)
doh re mi fah soh

If you think that the second note played after doh sounds like soh or the 5th degree of the major scale, then mark '5' with a circle like this:

Play first at piano 

Example b 1 2 3 4 ⑤ (on blackboard)
doh re mi fah soh

A2. Grade 2 (Intervals)

The numbers 1 to 5 are the first 5 degrees of a major scale. The first note played by me is the tonic or first degree of the scale (that is, doh or 1). Listen carefully to the second note played after doh. It will either be the 2nd, 3rd, 4th or 5th note of the major scale.

Example a (Play at piano )

If you think that the second note played after doh sounds like re or the 2nd note of the major scale, then mark '2' with a circle like this:

1 (2) 3 4 5
doh re mi fah soh (on blackboard)

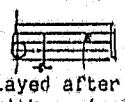
Example b (Play at piano )

If you think that the second note played after doh sounds like soh or the 5th note of the major scale, then mark '5' with a circle like this:

1 2 3 4 (5)
doh re mi fah soh (on blackboard)

A3. GRADES 3 and 4 (Intervals)

The numbers 1 to 8 are the first 8 notes (degrees) of a major scale. The first note played by me is the tonic or first degree of the scale (that is, doh or 1). Listen carefully to the second note played after doh. It will be either the 2nd, 3rd, 4th, 5th, 6th, 7th or 8th note of the major scale.

Example a (Play at piano )

If you think that the 2nd note played after doh sounds like doh^1 (or 8th note of the major scale), then mark '8' with a circle like this:

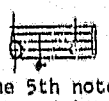
1 2 3 4 5 6 7 (8)
doh re mi fah soh la ti doh^1 (on blackboard)

Give another example.

A4. Grade 5 (Intervals)

The numbers 1 to 8 represent the first 8 degrees (notes) of a major scale. The first note played by me is always the tonic or first degree of the scale (that is, doh or 1). Listen carefully to the second note played after doh. It may sound higher, that is, above doh or lower, that is, below doh. You must tick one box:

[above] or [below] (on blackboard)

Example a ascending intervals (Play at piano )

If you think that the second note sounds like soh, or the 5th note of the major scale above doh, then mark '5' with a circle and tick 'above' like this:

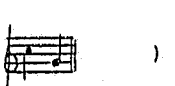
1 2 3 4 (5) 6 7 8 [above] ✓
doh re mi fah soh la ti doh [below] (on blackboard)

Example b descending intervals

If the second note played is lower than the tonic (first note played), then you must tick the box [below]. However, the interval must be identified in relation to the first note, that is, in terms of the scale starting on the first note you hear.

(Play at piano )

Here the first note (play c) is doh.

(Play at piano 

)

If you think that the second note is soh or the 5th note of the scale of C major, then mark '5' with a circle and tick 'below' like this:

1 2 3 4 (5) 6 7 8
doh re mi fah soh la ti doh' [above] [below]✓ (on blackboard)

Note that you have named the interval as the 5th degree of the scale below the tonic.

Give another example of descending intervals.

A5. Grade 6 (Intervals)

The numbers 1 to 8 represent the first 8 notes of the harmonic minor scale. The letter preceding the number indicates whether the interval is perfect, major or minor (P = Perfect; M = Major; m = minor). The first note played by me is always the tonic or first degree of the scale (that is, doh or P1). Listen carefully to the second note played after doh. It may sound higher, that is, above doh, or lower, that is, below doh. You must tick one box: [above] or [below].

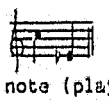
Example a ascending intervals (Play at piano )

If you think that the second note sounded like the 3rd degree (minor third) of the harmonic minor scale above the first note (doh), then mark 'm3' with a circle and tick 'above' like this:

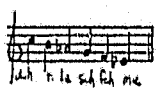
P1 M2 (m3) P4 P5 m6 M7 P8 [above]✓ [below] (on blackboard)

Example b descending intervals

If the second note played is lower than the tonic (first note played), you must tick the box [below]. However, the interval must be identified in relation to the first note, that is in terms of the scale starting on the first note you hear.

(Play at piano )

Here the first note (play c) is doh.

(Play at piano 

)

If you think that the second note is me or the 3rd note of the scale of c minor, then mark 'm3' with a circle and tick 'below' like this:

1 M2 (m3) P4 P5 m6 M7 P8 [above] [below]✓ (on blackboard)

Note that you have named the interval as the 3rd degree of the harmonic minor scale below the tonic.

Give another example of descending intervals.

A6. Grade 7 (Intervals)

Major and harmonic minor scale: recognition of any degree played, either ascending or descending intervals.
Use same explanation as in A4 and A5 above.
Addition of intervals m2 (minor second), Tritone, m7 (minor seventh) above (ie: ascending only). Give an example of this.

A7. Grade 8 (Intervals)

Same requirements as for Grade 7 plus addition of intervals m2, Tritone, m7 ascending and descending.
Give one example of additional intervals (m2, Tritone and m7) descending.

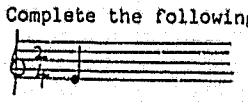
SECTION B : Explanation by examiner to students doing CAMETS grade tests:
Rhythm Dictation

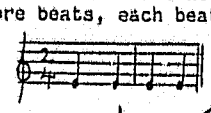
B. Grades 1 - 8

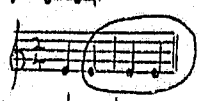
A single note will be played repeatedly on the piano in a certain rhythm. The time signature as well as the first beat will be given to you. Listen carefully to the rhythm and using notes of different value, (eg: 𝅝, 𝅗𝅥, ♩, ♪), you must write down the rest of the rhythm. All questions will last for two bars (measures) only.

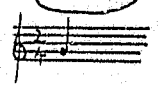
Play at piano

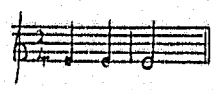
Example a Complete the following rhythm:

 (on blackboard)

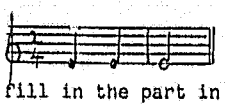
Listen to the rhythm. The written note (𝅗𝅥) is the beginning of what you hear. In this example, the first note you hear is a quarter note and it is not necessary to answer the first note (since it is already given). This note is followed by three more beats, each beat of the same length as the first given note.
Therefore the answer must be: 

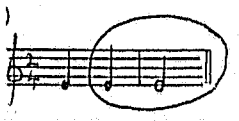
You must fill in the part in the circle: 

Example b Complete the following rhythm: 

(Play at piano )

In this example, you hear two notes after the first given note (♩). The first of these sounds the same length as the given note. But the second note you hear is a longer note. It must be a half note. Therefore the answer is:

 (on blackboard)

and you fill in the part in the circle: 

For students doing higher grades (2 to 8) use more complex examples.

SECTION C

C1. Metronome markings

The examiner must take metronome markings as approximations and is at liberty to vary these, especially with regard to subsequent playings of rhythms which he/she can choose to play slower.

C2. Number of playings

These must be strictly observed.

C3. Time limit

These must be observed fairly strictly. However, the time allowed between playings of the intervals or rhythms is left to the discretion of the examiner.
Intervals: The examiner may pause between playings for a short period (+- 3 to 5 seconds) or may repeat the interval almost immediately. In either case, the time limit extends from the end of the first playing of the interval.
Rhythms: It is suggested that the examiner allow sufficient time between the playings for students to notate the rhythm. He/she may continue when the majority of students taking the test appear to be ready for the next playing. (The examiner may ask to continue and a show of hands will indicate whether or not students are ready). Again, the time limit is imposed from the end of the first playing of the rhythm.

C4. Accentuation of rhythms

The examiner should accentuate the first note of the bar.

C5. Time taken to complete test

The tests have been designed to be completed in 10 to 15 minutes. This will depend on the length of the examiners explanation, number of students taking the test and their age and aptitude. The test was designed for use with students aged between 11 and 15. Therefore an attempt has been made to keep the examiner's explanation to students simple. It is assumed that where the majority of students taking the test are Afrikaans-speaking, the explanation to students will be given in Afrikaans.

SECTION D : Scheme of marking

D1. Intervals

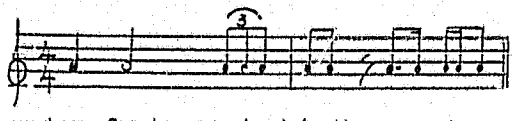
The intervals are either correct or incorrect. The mark is expressed as a percentage
eg: $\frac{5}{10} = 50\%$ $\frac{10}{15} = 67\%$

D2. Rhythms

The marking of rhythms is problematic as there are so many possible departures from the correct answer. Therefore, the following suggestions may act as guidelines for the examiner.

Note that, provided all student's tests are marked in the same way, the scores should accurately reflect student achievement and provide an accurate comparison of the students within a group.

Four rhythms are given for each CAMETS grade test. Therefore each counts for 25% and may be marked out of 25. Marks are awarded in the following way: The examiner must establish the total number of notes needed in the correct answer (excluding the beginning of the rhythm which is given). Ties and rests are included when calculating the number of 'notes'. A dotted note counts as one note. Similarly, a dotted rest counts as one note (even if it appears in the answer as two rests, for example, 𝄽· for 𝄽𝄾). A triplet counts as four notes as the '3' sign is included.

Example: 

The total number of notes required in the correct answer is 13 (first quarter note is given).

Calculation of student score

To do this, the examiner may use the formula: $\frac{\text{no. of notes correct}}{\text{total no. of notes}} \times 25$

Alternatively, the following table may be used. Depending on the number of notes required in the correct answer, the value of each note (out of 25) can be ascertained. The examiner then multiplies the number of notes answered correctly by the value of each.

Total number of notes	Value of each (out of 25)
2	12.5
3	8.33
4	6.25
5	5
6	4.16
7	3.57
8	3.12
9	2.77
10	2.5
11	2.27
12	2.08
13	1.92
14	1.78
15	1.66

The purpose of this method of marking is to reward students for getting part of the rhythm correct. It is not plausible to mark rhythms as totally correct or incorrect because the majority of students would then achieve 0% on such a test. There is a variety of common errors which must be considered. Penalties are imposed by calculating the student score (as outlined above) and then deducting a penalty.

Typical student errors include:

a) Too many bars

Ten marks are deducted as this error indicates a misunderstanding of the time signature. The examiner must only consider the first two bars of the answer unless it is apparent that the last bar is obviously correct and is given as the second bar of the answer. This deduction does not apply in the case of half-note values (see under d) below).

b) Too few bars

If the rhythm has not been properly completed and part of the second bar is incomplete, then the examiner must award marks to the beats answered.
If the student has given the answer in one continuous bar, this again reflects a misunderstanding of the time signature and 10 marks are deducted.

c) Bar lines placed incorrectly or apparently at random

Ten marks are deducted as the student has not understood the meaning of the time signature. If the student has ommitted a double-bar line or single bar line at the end of the rhythm, one mark is deducted.

d) Double or half-note values

If it is apparent that the answer or part of the answer has been notated as double or half-note values, then the examiner must first calculate the student score as if these notes were correct. Thereafter, deductions are made as follows:
10 marks if the entire rhythm is notated in this way;
5 marks if only one bar is notated in this way;
2½ marks if half of a bar is notated in this way.

If bar lines are placed in accordance with the time signature (in spite of the double or half-note values) then no further deductions are made. However, if bar lines are not placed in accordance with the time signature, a further 5 marks are deducted and a) and b) above do not apply.

e) Dotted notes

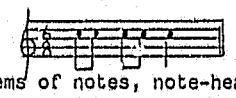
If a student omits the dot required in the correct answer, this note is taken to be two thirds correct and marked accordingly. If a student inserts a dot where none is required in the answer, this note is taken to be half correct and marked accordingly. Although these errors will result in incorrect bar placement, no further deductions are made according to c) above.

f) Too many notes in a bar

If the answer contains more notes in a bar than required in the correct answer, the extra notes are not considered and only the first portion of each bar is marked, unless the last portion of the bar is obviously correct, in which case this is considered to be the student's answer. In either instance, 5 marks are deducted per bar because the student has not understood the time signature.

g) Incorrect grouping of notes

Simple time signatures: Two marks are deducted for more than one incorrect note grouping or completely incorrect note groupings.
Compound time signatures: Two marks are deducted as for simple time signatures, provided that the definition of beats is maintained. However, if the answer does not indicate the beat, five marks are deducted ...

Example, for 

h) Incorrect stems of notes, note-heads, tails

One mark is deducted from student's total per rhythm regardless of the number of times these errors are made.

i) Answer given on notes of different letter-names.

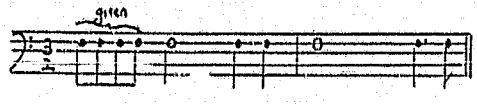
Students are not penalized if they do not continue the rhythm on the given note, provided that stems of notes are correctly placed.

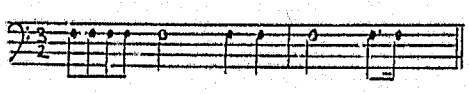
j) Minus scores

If, after being penalized, a student is left with a minus score, the score is indicated as zero for that rhythm.

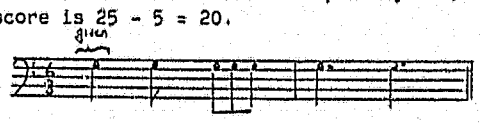
These marking suggestions and penalties may be changed at the discretion of the examiner provided that the scheme of marking is applied to all test papers.

Examples:

a) Correct answer: 

Student answer: 

Six notes required in answer. Student has used half-note values for second bar. Therefore, these notes are counted as correct but penalty of 5 marks (see d) above) is imposed. Student score is 25 - 5 = 20.

b) Correct answer: 

Student answer: 

Six notes required in answer. Student has answered correctly but grouping of notes in first bar does not show an understanding of the beat definition. Therefore 5 marks are deducted (see g) above).
Student score is 25 - 5 = 20.

D3. Pass Mark

A minimum of fifty per cent (50%) is required in each section (intervals and rhythms) for a student to pass a CAMETS grade test. The marks are shown separately and the combined average may be calculated, although this average may not accurately reflect student achievement.

APPENDIX G. QUESTIONNAIRE: FACE VALIDATION

QUESTIONNAIRE: THE FACE EVALUATION OF THE CAMETS GRADE TESTS AND SYLLABUS

I respectfully ask you to consider the following statements concerning the CAMETS grade tests and syllabus in interval recognition and rhythm dictation.

(Please tick the appropriate box)

1. The CAMETS grade tests are, on face evaluation, fair in that they closely approximate the CAMETS syllabus in content.

   agree ☐

   disagree ☐

   comment:

2. On face evaluation, the CAMETS grade tests examine what they claim to examine i.e. the questions asked adequately test the student's knowledge at a particular grade level according to the CAMETS syllabus.

   agree ☐

   disagree ☐

   comment:

3. The number of intervals asked is adequate.

   agree ☐

   disagree ☐

   comment:

4. The number of rhythms asked (four) is adequate.

   agree ☐

   disagree ☐

   comment:

5. The length of rhythms (two bars) is

   sufficient ☐

   too short ☐

   comment:

6. The time limits specified in tests appear to be feasible.

   agree ☐

   disagree ☐

   comment:

7. The recommended scheme of marking rhythms is feasible.

agree ☐

disagree ☐

comment:

8. The pass-mark of 50% in each section (intervals and rhythms) is feasible.

agree ☐

disagree ☐

comment:

9. It is usual for intervals asked in the UNISA Practical Musicianship examinations to be played on the same tonic. Yet the CAMETS grade tests in interval recognition at first presents a series of intervals on the same tonic, and then another series where the tonic continually changes.
Do you think that ...

all intervals presented on the same tonic is preferable? ☐

the combination of intervals on the same and different tonics as set out in the CAMETS tests is preferable? ☐

all intervals presented on different tonics is preferable? ☐

comment:

10. The level of difficulty of intervals specified in the CAMETS syllabus appears to be logically and gradually increased for each successive grade.

agree ☐

disagree ☐

comment:

11. The level of difficulty of rhythms specified in the CAMETS syllabus appears to be logically and gradually increased for each successive grade.

agree ☐

disagree ☐

comment:

12. The level of difficulty of intervals specified in the CAMETS grade tests appears to be logically and gradually increased for each successive grade.

agree ☐

disagree ☐

comment:

13. The level of difficulty of rhythms specified in the CAMETS grade tests appears to be logically and gradually increased for each successive grade.

agree ☐

disagree ☐

comment:

14. The whole purpose of rhythm dictation is defeated because the time signature is given in the CAMETS grade tests (and syllabus).

agree ☐

disagree ☐

comment:

15. On face evaluation, results (ie: student scores) obtained from CAMETS grade tests would seem to be meaningful in that they would provide a valid index of student achievement, that they would test a student's ability to recognize intervals and dictate rhythms fairly accurately, and that the scores are likely to provide a basis of comparison of student ability within a group of students taking the same test.

agree ☐

disagree ☐

comment:

16. Testing a student's ability to write down a rhythm or interval is a valid means of measuring his/her skill in music ear-training.

agree ☐

disagree ☐

comment:

17. On face evaluation, the CAMETS syllabus and grade tests in interval recognition and rhythm dictation appear to have relevance to students studying music ear-training at the level of graded music examinations, and seem to be as valid as the corresponding sections of the UNISA syllabus and tests in Practical Musicianship. (Please refer to page 4 of my letter for the argument supporting this statement).

agree ☐

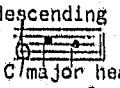
disagree ☐

comment:

The following section concerns the actual GUIDO computer program. Although not part of the CAMETS test and syllabus, observations on the limitations of the computer program form an integral part of my research. I value your opinion on these matters.

1. Descending intervals

For UNISA's Practical Musicianship examination the student must consider the first note of the descending interval to be the tonic.

For example,  is called a Major 7th, that is, B is the 7th degree of the scale of C major heard below the tonic. The computer, on the other hand, only accepts a response of minor 2nd to this same example, that is, the second (or lower) note heard is taken to be the tonic.

Which method do you think should be employed in teaching students to recognize descending intervals?

a) the UNISA approach ☐

b) the 'computer's' approach ☐

c) either method ☐

d) both methods ☐

comment:

2. Rhythm played on one note

The computer program is designed so that rhythms (for student dictation) are played on one note i.e. a single note is repeated in a certain rhythm. It can be argued that it is easier to remember a rhythm that has some melodic interest than a rhythm on a single note. Do you think that parameters of music (pitch, rhythm, etc.) should be compartmentalized in this way or that aspects of music ear-training should not be broken down into separate components?

comment:

3. Rhythms without accents

The computer program has been designed to play rhythms without any accents, that is, there is no emphasis placed on the first beat of the bar and no sense of pulse. Therefore a 'rhythm' may be notated in any time signature. It is for this reason that the time signature is specified for each rhythm.
Do you think that this is a major flaw in the computer system?

yes ☐

no ☐

comment:

4a. Ear-training as a physical activity

Do you think that ear-training is a physical activity, that is, that singing, clapping, beating time, etc. forms an integral part of aural training?

yes ☐

no ☐

comment:

4b. Because the GUIDO computer program in ear-training does not emphasize this physical aspect of ear-training (since students need not sing an interval or clap a rhythm), do you consider this to be a major flaw in its approach?

yes ☐

no ☐

comment:

Additional Remarks

I would welcome any further comment, criticism, or suggestions for improvement which may not have been adequately covered in the questionnaire.

comment:

Please complete the following: (Please print)

Name: ..... University/Institution: .....

Subject(s) in which you lecture: .....

Today's date: ..... Signature: .....

Please indicate one:

I wish to remain anonymous if my point of view is used in this dissertation ☐

I do not wish to remain anonymous if my point of view is used in this dissertation ☐

APPENDIX H. QUESTIONNAIRE: STUDENTS PARTICIPATING IN THE STUDY

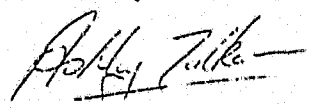
Dear Student

As you know, the Computer-assisted Music Ear Training Study has been in progress at the Windhoek Conservatoire since late April 1985. You have been attending an individual computer lesson and a group class each week. This is the first research project of its kind to be conducted in South West Africa and you are the first students to use this computer and music program in our country. Because of this, what you thought and your opinion of this study are very important.

Therefore, I ask you to take some time to complete the Questionnaire in front of you. This is simply a series of questions which you must answer to the best of your ability. It is not a test and there are no 'right' answers. Just fill in the information requested and tick those statements that are closest to what you think.

Please note that it is not necessary to fill in your name on the questionnaire. This means that you remain anonymous and you can tick any answer without fearing that your opinion will be known to me. Therefore I ask you to complete this questionnaire as honestly as possible.

Yours sincerely



ASHLEY ZOLKOV

QUESTIONNAIRE FOR STUDENTS WHO PARTICIPATED IN THE COMPUTER-ASSISTED MUSIC EAR-TRAINING STUDY

Instructions

1. First read all the choices of answers in each question.
2. Then tick the answer that best says what you think by marking the appropriate box.
3. A dotted line (.....) indicates that you must fill in the requested information.

SECTION A

A1. When you first started with computer lessons, Mr Zolkov taught guitar in the same room as the computer.
I found that : (tick one)

a) the sound of the guitar and his teaching disturbed my concentration ☐

b) the sound of the guitar and his teaching did not disturb my concentration ☐

A2. During the third term, Mr Zolkov taught in another room (down the steps).
I found that :

a) it was better for me that I was on my own ☐

b) it was worse for me as I had to call him often ☐

c) I only had to call him sometimes so I didn't mind ☐

d) it made no difference to me whether he was in the computer room or not ☐

A3. (Tick one)

a) I was able to fix the computer on my own after the first few lessons ☐

b) I sometimes needed help in fixing the computer ☐

c) I often needed help in fixing the computer ☐

d) I always needed help in fixing the computer ☐

A4. When you arrived for your computer lesson, the first thing you would do is switch everything on. Then, having put in the disk and closed the door of the disk drive, the next thing you would do is : (tick one)

a) press the reset button on the monitor ☐

b) press NEXT ☐

c) press F4 ☐

d) wait for the disk to load ☐

e) call the supervisor ☐

A5. If there was no sound coming through the earphones, the first thing I would do is : (tick one)

a) press SHIFT-BACK ☐

b) call the supervisor ☐

c) press LAB ☐

d) press NEXT ☐

e) press the reset button at the back of the synthesizer ☐

A6. If you wanted to carry on after a PRACTICE UNIT, you would first : (tick one)

a) press SHIFT-STOP ☐
b) press LAB ☐
c) call the supervisor ☐
d) press NEXT ☐
e) press SHIFT-NEXT ☐

Instructions

1. If you did the Interval lessons on the computer, only answer the questions in SECTION B and leave out SECTION C.
2. If you did the Rhythm lessons on the computer, only answer the questions in SECTION C and leave out SECTION B.

SECTION B (Intervals on computer)

B1. When working with the computer, there was no sound through the earphones: (tick one)

a) very often ☐
b) quite often ☐
c) only sometimes ☐
d) hardly ever ☐

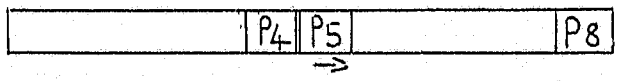
B2. Did you use the PRACTICE UNITS? : (tick one)

a) Always ☐
b) Very often ☐
c) Sometimes ☐
d) Hardly ever ☐
e) Never ☐

B3. How often did you sing the interval before giving your answer? : (tick one)

a) Always ☐
b) Very often ☐
c) Sometimes ☐
d) Hardly ever ☐
e) Never ☐

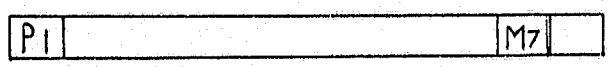
B4. If you saw on the screen



and you had just touched the P5 box, it would mean that : (tick one)

a) the computer is wrong ☐
b) your answer is wrong ☐
c) the correct answer is P8 ☐
d) the correct answer is P4 ☐

B5. If the lesson was



did you think that : (tick one)

a) this was stupid because it is easy to tell the difference between these two intervals ☐
b) there was a reason for this lesson and this reason is (fill in your answer) ☐

.....

.....

B6. (Tick one)

a) I never needed help in answering the intervals ☐
b) I sometimes needed help in answering the intervals ☐
c) I often needed help in answering the intervals ☐
d) I always needed help in answering the intervals ☐

SECTION C (Rhythm on computer)

C1. When working with the computer, there was no sound through the earphones : (tick one)

a) very often ☐
b) quite often ☐
c) only sometimes ☐
d) hardly ever ☐

C2. Did you use the PRACTICE UNITS? : (tick one)

a) Always ☐
b) Very often ☐
c) Sometimes ☐
d) Hardly ever ☐
e) Never ☐

C3. How often did you clap or tap the rhythm before giving your answer? : (tick one)

a) Always ☐
b) Very often ☐
c) Sometimes ☐
d) Hardly ever ☐
e) Never ☐

C4. If you wanted a dotted half note (𝅗𝅥.), you would first : (tick one)

a) press [𝅗𝅥] ☐
b) press HELP ☐
c) press NEXT ☐
d) press [DOTTED] ☐

C5. If you touched a box and the note in the box did not appear in your answer, it would mean that : (tick one)

a) the box you touched was the wrong answer ☐
b) the computer is not working properly ☐
c) the box you touched was the right answer ☐
d) you did not press the box hard enough ☐

C6. (Tick one)

a) I always needed help in answering the rhythm lessons ☐
b) I often needed help in answering the rhythm lessons ☐
c) I sometimes needed help in answering the rhythm lessons ☐
d) I never needed help in answering the rhythm lessons ☐

Instruction

1. Answer all the remaining sections.

SECTION D

D1. The group classes (given by Mr Johan Pieterse and Mr Philip Münch) were mostly given in one language. (tick one)

a) I could easily understand my instructor because he spoke in my home language ☐
b) I could easily understand my instructor although he did not speak in my home language ☐
c) I could understand most of what my instructor said ☐
d) I could not understand my instructor very well ☐

D2. I thought my instructor : (tick one)

a) went too slowly in the class lessons ☐
b) went too fast in the class lessons ☐
c) went neither too slowly nor too fast in the class lessons ☐

D3. In the class I found that : (tick one)

a) I could not keep up with the other students ☐

b) I could keep up with the other students ☐

c) I always knew the answers and think I was more advanced than the other students ☐

SECTION E

E1. In my music lessons at the Conservatoire, my teacher does ear-training with me : (tick one)

a) every lesson ☐

b) almost every lesson ☐

c) sometimes ☐

d) only before exams ☐

e) hardly ever ☐

f) never ☐

E2. Since I started this ear-training course, my music teacher has said : (tick one)

a) that my ear-training has not improved ☐

b) that my ear-training has improved a little ☐

c) that my ear-training has improved a lot ☐

d) nothing to me about this ☐

E3. Do you feel that this course has helped your ear-training? : (tick one)

a) A little ☐

b) Not at all ☐

c) A lot ☐

E4. I feel that : (tick one)

a) I have improved more in rhythm than in intervals ☐

b) I have improved more in intervals than in rhythm ☐

c) I have improved the same amount in both intervals and rhythm ☐

d) I have not improved at all ☐

E5. If I had a choice, I would have : (tick one)

a) only done the classes ☐

b) only done the computer ☐

c) done both computer and classes ☐

d) not done either computer or classes ☐

E6. If this course is held again (next year, for example), I would : (tick one)

a) be interested in continuing only with the classes ☐

b) be interested in continuing only with the computer ☐

c) be interested in continuing with both classes and computer ☐

d) not be interested in continuing with both computer and classes ☐

SECTION F

F1. Last week you were given two tests. The first of these was at a lower grade than the second.
In the first test (that is, the one at the lower grade), I found that : (tick one)

a) the intervals were harder than the rhythms ☐

b) the rhythms were harder than the intervals ☐

c) both intervals and rhythms were easy ☐

d) both intervals and rhythms were hard ☐

e) I do not remember ☐

F2. In the second test held last week (the one at the higher grade), I found that : (tick one)

a) the intervals were harder than the rhythms ☐

b) the rhythms were harder than the intervals ☐

c) both intervals and rhythms were easy ☐

d) both intervals and rhythms were hard ☐

e) I do not remember ☐

F3. At the beginning of this course you were given tests as well. Do you think that the tests you did last week were the same as the very first tests? : (tick one)

a) No ☐

b) Yes, but not exactly the same ☐

c) Yes, but almost the same ☐

d) Yes ☐

e) I do not remember ☐

SECTION G

G1. In one or two sentences, write down what you think this learning course was about

.....

.....

.....

G2. In the following space, write down anything you want to say - about the computer, or classes, or anything at all.

.....

.....

SECTION H

H1. (Tick one)

a) I did intervals on the computer ☐

b) I did rhythm on the computer ☐

H2. My group class was on : (tick one)

a) Wednesdays ☐

b) Thursdays ☐

H3. My group class was at : (tick one)

a) 5 p.m. ☐

b) 5.30 p m. ☐

c) 3 p.m. ☐

d) 3.30 p.m. ☐

H4. At my last birthday, I turned ..... years old.

H5. I am : (tick one)

a) a girl ☐

b) a boy ☐

H6. My home language is : (tick one)

a) German ☐

b) Afrikaans ☐

c) English ☐

APPENDIX I. QUESTIONNAIRE: MUSIC LECTURERS

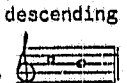
QUESTIONNAIRE MUSIC LECTURERS

I respectfully ask you to consider the following statements concerning the CAMETS program in music ear-training. Please indicate your preferences by marking the appropriate box. Space has been left for additional comments and these would be greatly appreciated.

Please note that you will remain anonymous and opinions expressed in the questionnaire will not be attributed to individuals by name in this nor any subsequent research and reports.

1. Descending intervals

For UNISA's Practical Musicianship examination the student must consider the first note of the descending interval to be the tonic.

For example,  is called a Major 7th, that is, B is the 7th degree of the scale of C major heard below the tonic. The computer, on the other hand, only accepts a response of minor 2nd to this same example, that is, the second (or lower) note heard is taken to be the tonic.

Which method do you think should be employed in teaching students to recognize descending intervals?

a) the UNISA approach ☐

b) the 'computer's' approach ☐

c) either method ☐

d) both methods ☐

comment:

2. Rhythm played on one note

The computer program is designed so that rhythms (for student dictation) are played on one note i.e. a single note is repeated in a certain rhythm. It can be argued that it is easier to remember a rhythm that has some melodic interest than a rhythm on a single note. Do you think that parameters of music (pitch, rhythm, etc.) should be compartmentalized in this way, or that aspects of music ear-training should not be broken down into separate components?

comment:

3. Rhythms without accents

The computer program has been designed to play rhythms without accents, that is, there is no emphasis placed on the first beat of the bar and no sense of pulse. Therefore a 'rhythm' may be notated in any time signature. It is for this reason that the time signature is specified for each rhythm. Do you think this is a major flaw in the computer system?

yes ☐

no ☐

comment:

4a. Ear-training as a physical activity

Do you think that ear-training is a physical activity, that is, that singing, clapping, beating time, etc. forms an integral part of aural training?

yes ☐

no ☐

comment:

4b. Because the GUIDO computer program in ear-training does not emphasize this physical aspect of ear-training (since students need not sing an interval or clap a rhythm), do you consider this to be a major flaw in its approach?

yes ☐

no ☐

comment:

5. Testing a student's ability to write down a rhythm or interval is a valid means of measuring his/her skill in music ear-training?

agree ☐

disagree ☐

comment:

6. The whole purpose of rhythm dictation is defeated because the time signature is always given in CAMETS rhythm lessons.

agree ☐

disagree ☐

comment:

7. It is usual for intervals asked in the UNISA Practical Musicianship examination to be played on the same tonic. Yet the CAMETS lessons in interval recognition at first presents a series of intervals on the same tonic, and then another where the tonic continually changes. Do you think that ...

all intervals presented on the same tonic is preferable? ☐

the combination of intervals on the same and different tonics as set out in the CAMETS lessons is preferable? ☐

all intervals presented on different tonics is preferable? ☐

comment:

8. If this computer system was available to your students, would you encourage them to use this CAMETS ear-training program?

yes ☐

no ☐

comment:

9. Have you noticed any improvement in interval recognition and rhythm dictation among students of yours who participated in the research study?

yes ☐

no ☐

(Please give names of the students concerned) .....

.....

not applicable ☐

comment:

10. Students are required to identify intervals played on a synthesizer in the CAMETS lessons. Yet UNISA examinations are conducted at the piano.
It would be better if a 'piano' sound could be used in the computer lessons ☐

a synthesized tone is acceptable ☐

comment:

11. Students working with the comp[illegible] all instructions on the screen [illegible]nglish. Do you consider this to be a [illegible]ntage for the Afrikaans-or Germa[illegible]peaking student?

yes ☐

no ☐

12. I feel I could benefit from working with the GUIDO system to improve my own aural ability.

agree ☐

disagree ☐

Additional Remarks

I would welcome any further comment, criticism or suggestions for improvement.

comment:

Please complete the following (please print):

Name: .....

University/Institution: .....

Subject(s) in which you lecture: ....

Today's date: ..... Signature: .....

APPENDIX J. LETTERS SENT TO STUDENTS, PARENTS AND MUSIC LECTURERS

Windhoekse Konservatorium

Windhoek Conservatoire

Windhoeker Konservatorium

Alle korrespondensie moet gerig word aan:
All correspondence to be addressed to:
Alle Korrespondenz ist zurichten an:

Die Hoof / The Principal / Der Leiter — Posbus / P.O. Box 2963 / Postfach — WINDHOEK / 9000 / SWA

Tel. (061) 25841/2/3

Navrae/Enquiries/Auskunft	Verw. no./Ref. num./ Aktenzeichen	U verw. no./ Your Ref. num./ Ihr Aktenzeichen
A. ZOLKOV	S/ZOLKOV	

1985/03/26

Dear Student,

Many of you who are learning to play a musical instrument at the Windhoek Conservatoire may be disturbed by the fact that you have to do aural (ear) training for examination purposes. Unless you are attending the special classes conducted in aural training (year-course 4 upwards) by the Conservatoire's department of Theory, you may be finding that ear-training is a problem for you. Often your lecturer does not have enough time during your lesson to concentrate on ear-training, and this training may be left until the 'last moment' before your examination.

With this in mind, you are being offered the opportunity of learning aural training in a totally new way: by working with a computer. The ear-training programme written for the computer has been developed and tested in the United States of America since 1974. We now have this computer programme in South West Africa and it has been specially adapted to match the requirements of music examinations in this country, both the internal examinations conducted by the Conservatoire and external examinations such as UNISA and Trinity College.

If you are interested in working with this computer programme, you now have the opportunity. You will form part of a research study conducted by myself in which the computer ear-training programme is to be compared with the usual teacher/learner method of ear-training instruction.

I am certain by now you have lots of questions to ask:

If I take part in this computer-learning study, how much of my time will it take?

This study project will run for six months, during which time you will be required to work with the computer for half-an-hour per week, at any time which suits you (week-days only, any time from 2 pm to 6 pm). Also, you will be required to attend a group ear-training class conducted by two lecturers at the Windhoek Conservatoire, Department of Theory, for half-an-hour per week. Because this is a group class, we shall arrange a time that suits you as well as the lecturer and the other students in the group.

When will this study take place?

It is envisaged that this study will begin in the second school quarter and continue until the end of the third quarter of 1985 (that is, April 10th to September 19th, 1985).

Do I work alone with the computer?

Yes.

Will I be shown how to work the computer and given instructions in my home language?

Yes.

How large is the group class and will the other students be of the same age as myself?

The group of between 6 and 8 students will be of the same age group.

What will I actually be learning?

You will be learning interval recognition (that is, to be able to tell the distance between two notes after hearing them) and rhythm dictation (that is, to be able to write down a rhythm after hearing it). Also, you will be learning to use a computer.

If I start this project, can I change my mind and stop halfway if I don't like it?

Firstly, I am sure you will like it. I am sure you know that computers are important in our lives and will be even more so in the future. Therefore, the more you know about computers, the better for you. Now I am asking for only one hour per week of your time for a period of six months, that is, approximately, 24 hours or one day! So you must realize at the outset that, once you agree to take part in the project, you are committed and cannot leave until the end of the six-month period.

Is there any cost or charge for taking part?

No, your participation in this project is absolutely free.

Do I need to know anything about music?

Perhaps you have just started learning an instrument at the Conservatoire and you are unsure whether or not you will manage this course. Even in this case, everything you need to know will be explained to you first.

Will I have to do any tests and, if so, will my marks be sent to my music lecturer, school teacher, parents or the Conservatoire?

In order to test whether the computer can effectively teach ear-training, it is necessary to measure your ability in ear-training both before and after you work with the computer. This means that there will be two tests, before you start and at the end of the six month period. However, the marks you score on these tests are strictly confidential. Of course, you are entitled to know how you fared in a test, but the marks will not be sent to your school teacher, lecturer at the Conservatoire, or parents. Also, you will be informed (if you wish) of your marks privately, so no-one else in the project need know.

Do I have to take part in this project?

No. Participation is entirely voluntary.

Who has authorised you to conduct this study?

I have been authorised by the Directorate Education, Administration for Whites, South West Africa, to conduct this study in the interests of improving music education in S.W.A. Also, Dr P. Roos, Head of the Windhoek Conservatoire, has given his full consent to this project. So, by taking part you will be helping us to help you in your study of music.

Where will this project take place?

Both your private computer instruction and group class will take place at the Windhoek Conservatoire.

You may be interested to see the results of this study when it is completed. These results will be made available to you, if you wish. Please note that you will not be mentioned by name in any reports or published results.

So now it is up to you. I urge you to agree to take part in this project, as I am sure it will provide a unique learning experience for you.

Please complete the attached form and post it to me in the enclosed envelope by 15 April 1985 at the latest.

If you have any further questions you wish to ask, please contact me. (Telephone 2581 in the afternoons and 22677 in the evening).

Yours sincerely

ASHLEY ZOLKOV
LECTURER IN GUITAR
DEPT: SINGING/GUITAR
WINDHOEK CONSERVATOIRE

This letter is available in Afrikaans and German on request.

(TICK THE APPROPRIATE BOX)

A. I am most interested in this computer-assisted ear-training study and wish to take part. I understand that, once committed, I cannot withdraw until the six month period is completed. ☐

B. Thank you for considering me for this research project. However, I do not wish to take part. ☐

(PLEASE PRINT IN BLOCK LETTERS)

My name: .....

Address: ..P.O. Box.....

Telephone: .....

Date of Birth: Day Month Year

.....

Today's date: .....

I hereby consent to my son/daughter's participation in this project to be conducted at the Windhoek Conservatoire.

Signature of Parent/Guardian: .....

Parent/Guardian's name: .....

Windhoekse Konservatorium

Windhoek Conservatoire

Windhoeker Konservatorium

Alle korrespondensie moet gerig word aan:
All correspondence to be addressed to:
Alle Korrespondenz ist zurichten an:

Die Hoof / The Principal / Der Leiter — Posbus / P.O. Box / Postfach — WINDHOEK 9000 SWA/ NAMIBIA

Tel. (061) 25841/2/3

Navare/Enquiries/Auskunft	Verw. no./Ref. num./ Aktenzeichen	U verw. no./ Your Ref. num./ Ihr Aktenzeichen
A. ZOLKOV	S/ZOLKOV	

1985/03/26

Dear Parent

Enclosed is a letter from Mr Ashley Zolkov concerning the computer-assisted learning course in music ear-training, to be conducted at the Windhoek Conservatoire by Mr Zolkov.

This project has been approved by the Director of Education, Administration for Whites, South West Africa, and Mr Zolkov has my full backing and support in this study.

I respectfully ask you to carefully consider this matter and urge you to grant permission for your son/daughter's participation. I feel that this project will greatly further your child's music education at the Conservatoire and could contribute to the improvement of music education in South West Africa.

Yours faithfully

DR P. ROOS
HEAD: WINDHOEK CONSERVATOIRE

This letter is available in Afrikaans and German on request.

1985/03/26

Dear Parent

Many of us perhaps feel a little threatened by the advent of the computer in our lives. They seem complex, complicated, often unnecessary machines which have been imposed on us by technological innovators of the Western world.

However, much as we may despise the instrusion of these machines, we realize that computers are here to stay. It is necessary that we accept this situation and especially encourage our children to learn about computers. For a child today, knowledge and an understanding of the uses of computers will greatly benefit them in their future careers.

With this in mind, I respectfully request that you allow your son/daughter to participate in a research study in which a computer is to be used to 'teach' music ear-training. This study is to be conducted by myself at the Windhoek Conservatoire.

Please do not be alarmed by the term "research study". Your child is not to be used as a guinea-pig in some macabre experiment. Rather, I wish to assess the usefulness of a computer as a teaching aid. The computer to be used in this study is not some newfangled toy which is to be tried out on students for the first time. In fact, this music programme has been developed in the United States of America, fully researched and tested for over ten years.

However, this computer programme has never before been available in South West Africa and has only recently been acquired in South Africa, by the Conservatoire in Stellenbosch. It is my intention to determine whether or not the computer can be a useful learning aid when adapted to the South West African music situation. I have adapted the computer programme to fully cover requirements for our music examinations - both those of the Windhoek Conservatoire and of external music examining bodies, such as UNISA and Trinity College. Therefore, what your child will learn is not irrelevant but will assist him/her in a concrete way, in both developing an ear for music and passing music examinations.

Furthermore, this is not research for its own sake. It is hoped that if the computer can be shown to help students in music ear-training, it may eventually be in regular use at the Windhoek Conservatoire. This is not to say that the computer will one day replace the teacher. Fortunately, this will never happen, since machines cannot think for themselves! However, the computer may eventually assist teachers in their professions. By performing drill-and-practice routines, the computer could assist the teacher by reducing time spent in routine teaching. Through the computer, the teacher can pinpoint problem areas a student may have and spend more time with the student in overcoming these problems.

I have written directly to your child explaining fully what is involved in this project. I would appreciate it if you would read that letter. I wish to briefly outline what it entails.

Firstly, a group of sixty students attending the Windhoek Conservatoire will be chosen. They will do a pre-test to determine their abilities in music ear-training. Thereafter, each student is required to work individually with the computer for a half-hour per week, as well as to attend a group class conducted by lecturers at the Windhoek Conservatoire for a half-hour per week. This project will continue for six months, after which a post-test will be administered.

There is no cost involved and participation is entirely voluntary. However, it must be emphasized that, once a student agrees to take part, he/she cannot withdraw half way. Participants will remain anonymous in any published reports and their marks obtained in the two tests will remain confidential.

I realize that most school-going students are overloaded with extramural activities. Therefore every effort will be made to accommodate your child at times suitable to both him/her and yourself. Also, only two half-hour sessions per week are involved (for a six-month period).

This research project is being supervised by the Director of Education, Administration for Whites, S.W.A., as well as the Departments of Music and Education, University of the Witwatersrand. Therefore, this study will be conducted in a proper, scientific manner and reviewed every step of the way by the above bodies.

Should you have any further queries, please feel free to contact me at any time (telephone 22677 mornings and evenings, 25841 on weekday afternoons).

Finally, I again appeal to you to grant permission for your child's participation (by signing the acceptance form) and avail your son/daughter of this unique learning experience in South West Africa.

Yours faithfully

ASHLEY ZOLKOV
LECTURER IN GUITAR
DEPT: SINGING/GUITAR
WINDHOEK CONSERVATOIRE

This letter is available in Afrikaans and German on request.

Windhoekse Konservatorium
Windhoek Conservatoire
Windhoeker Konservatorium

Alle korrespondensie moet gerig word aan:
All correspondence to be addressed to:
Alle Korrespondenz ist zurichten an:

Die Hoof / The Principal / Der Leiter — Posbus / P.O. Box 2963 / Postfach — WINDHOEK 9000 SWA/ NAMIBIA

Tel. (061) 26841/2/3

Navare/Enquiries/Auskunft	Verw. no./Ref. num./ Aktenzeichen	U verw. no./ Your Ref. num./ Ihr Aktenzeichen
A. ZOLKOV	S/ZOLKOV	

1985/03/26

Dear Colleagues

Enclosed is a letter from Ashley Zolkov regarding his research project to determine the effectiveness of computer-assisted instruction in music aural training.

May I urge you to give this matter your full attention. Your co-operation will be greatly appreciated.

Yours faithfully

DR P. ROOS
HEAD: WINDHOEK CONSERVATOIRE

1985/03/26

Dear Colleague

Under the authority of the Dept. of Education, Administration for Whites, S.W.A., I have been granted permission to conduct a research study to determine the effectiveness of computer-assisted instruction in music aural (ear) training. The purpose of this study is to compare the effect of the computer as a learning aid with the traditional method of instruction in music ear-training. Students selected to participate in this study will be working with a Control Data computer (part of the PLATO education project), using a programme especially designed to cover aural training according to the requirements of our internal examinations, as well as those of external examining bodies such as UNISA and Trinity College.

Some of us may perhaps feel threatened by the advent of the computer in our lives. These may seem to be complex, complicated, even unnecessary machines which have been imposed on us by technological innovators of the Western world. However, much as we may despise the intrusion of computers, we must surely accept that they are here to stay. We should especially encourage our children and students to learn about computers. For youngsters today, knowledge and an understanding of the uses of computers will greatly benefit them in their future careers.

Sixty students (aged between 11 and 15) attending the Windhoek Conservatoire have been chosen to participate in this study. The project is to run for six months (beginning 2nd quarter to end 3rd quarter) and students will be required to attend an individual computer-assisted lesson of thirty minutes duration (per week) as well as a class receiving group tuition in aural training for 30 minutes per week. This class is to be conducted by lecturers of our department of Theory.

I realize that our students are quite overloaded with extramural activities and you may feel that their practical tuition may suffer if yet another hour per week is allotted to this project. However, the project will only continue for six months and the instruction students receive in ear-training is specifically geared towards their music examinations. So it is not really a waste of time and your work-load may actually be decreased!

The students chosen will receive instruction in two areas of aural training: interval recognition and rhythm dictation. This training will be at the same standard as their present level of music education.

Appended is a list of the students who have been chosen for this project. If there are any students on this list whom you teach, may I respectfully request your assistance in urging these students to take part in this study. The project is particularly relevant to those students in the primary grades as no aural training is presently being offered to students below the grade 4 standard. Yet, even if you have students presently attending the aural classes conducted by the department of Theory at the Conservatoire, you are still urged to encourage these students to participate in this project and continue with their aural classes.

This study is being supervised by the departments of Music and Education, University of the Witwatersrand, as well as the Department of Education, S.W.A. Therefore, it will be conducted in a proper, scientific manner and continually reviewed by the above bodies.

Please do not be alarmed by the terms "research study/project". Students are not to be used as guinea-pigs in some macabre experiment. Rather, I wish to assess the usefulness of a computer as a teaching aid. The computer to be used is not some newfangled toy which is to be tried out on students for the first time. In fact, this music programme has been developed in the United States of America, fully researched and tested since 1974.

However, this computer programme has never before been available in South West Africa/Namibia and has only recently been acquired in South Africa, by the University of the Witwatersrand and Conservatoire in Stellenbosch. It is my intention to determine whether or not the computer can be a useful learning aid when adapted to the South West African music situation.

Furthermore, this is not research for its own sake. It is hoped that if the computer can be shown to help students in music ear-training, it may eventually be in regular use at the Windhoek Conservatoire. This is not to say that the computer will one day replace the teacher. Fortunately, this will never happen, since machines cannot think for themselves! However, the computer may eventually assist teachers in their professions. By performing drill-and-practice routines, the computer could assist the teacher by reducing time spent in routine teaching. Through the computer, the teacher can pinpoint problem areas a student may have and spend more time with the student in overcoming these problems.

Your assistance with this project will be greatly appreciated. At a later date you will be invited to work with the computer programme yourself and any comments, criticism and opinions will be much appreciated. If you have any further queries, please contact me (home telephone no: 22677).

Yours faithfully

Ashley Zolkov

ASHLEY ZOLKOV
DEPT: SINGING/GUITAR

P.O. Box 6399
AUSSPANNPLATZ
WINDHOEK
9000

10 February 1986

Dear Colleague

RE: DEMONSTRATION OF COMPUTER-ASSISTED PROGRAM IN MUSIC EAR-TRAINING

In March 1985 I wrote to you about the research study which I was conducting at the Windhoek Conservatoire in computer-assisted music ear-training. This study has now been completed although I have not yet analysed the results statistically. As promised, I wish to invite you to a short demonstration of the computer to point out its capabilities and limitations with regard to aural training.

I wish to give you some background information. For my research I acquired the GUIDO Micro Ear Training System, which is part of the PLATO educational project. This ear-training computer program allows the instructor to administer ear-training drill and-practice routines to students. Various aspects of music ear-training are covered separately, namely, interval recognition, melodic dictation, rhythm dictation, chord recognition and harmonic dictation. For the purpose of my study I have chosen to use only interval recognition and rhythm dictation. Because of the format of the GUIDO system (the programs operate on a table-driven design), it is possible for the instructor to adapt the lesson content. This means that the instructor can decide what intervals to include in a lesson, for example, the number of questions per lesson, the pass mark and the ambitus of intervals, etc. Using this facility, I have adapted these programs to closely follow the requirements for UNISA's Practical Musicianship Grade examinations, that is, focussing only on the interval and rhythm sections of these examinations. I have designed a complete graded course in interval recognition and rhythm dictation at a primary and secondary level of music education (grades 1 - 8)

Now, for my research, I have attempted to compare student achievement using two different methods of instruction: computer-assisted instruction and the traditional teacher/learner method of instruction. Students in two different age groups (11 - 12 and 13 - 15) were chosen from the Windhoek Conservatoire. Each of these age groups was then randomly divided into two sub-groups. The Computer-Assisted Music Ear-Training Study (CAMETS) tests (designed by myself) were administered to establish student achievement before commencing treatment. Each sub-group then received traditional instruction in one aspect of ear-training (intervals or rhythms) while simultaneously receiving computer-assisted instruction in the other aspect. The treatment, conducted from the 2nd quarter of 1985 continued for six months. Thereafter, the same CAMETS tests were administered as post-tests.

My aim in requesting you to attend this demonstration is two-fold. Firstly, I feel that, as professionals in your field, music educators should be aware of new methods and innovations in teaching music. No matter how one feels about computers personally, one should realize that they do have a place in education, that they are here to stay and one should try to keep abreast of recent developments.

Secondly, as music lecturers you can speak with authority on aspects of ear-training as it is part of your every-day teaching. I would therefore appreciate your opinion, and criticism, of this particular computer ear-training program. I have drawn up a short questionnaire inviting your comments. This will be given to you after the demonstration.

Please note that you do not need to know anything about computers to benefit from this demonstration. I have arranged two demonstrations to be held in my studio (Windhoek Conservatoire, Annex 1, room 6). Each should last no longer than one hour. The dates are:

Tuesday March 4 1986: 17 h 15 - 18 h 15
Saturday March 8 " : 11 h 30 - 12 h 30

If neither of these dates suit you, I would be happy to arrange an alternative time. Please contact me at telephone: 22677 (h) or 25841 (w).

Please complete the following and return to me at your earliest convenience.

I wish to attend the computer demonstration on 4/3/1986 ☐
8/3/1986 ☐
at another time ☐
(please specify) .....

I do not wish to attend either computer demonstration ☐

I have already seen the computer but would be willing to complete the questionnaire. Please forward one to me. ☐

Name (please print) .....

Date .....

Address (if not Windhoek Conservatoire) .....

Yours faithfully

ASHLEY COLYOV

APPENDIX K. HELP-BOARDS

HELP! I NEED SOMEBODY

If you are totally stuck, ask one of the lecturers in studios nos. to help you.

NB: lock the door when you leave this studio.

As daar 'n probleem is wat jy nie kan oplos nie, vra een van die dosente in ateljee nrs. om te help.

LW: Sluit die deur wanneer jy hierdie ateljee verlaat.

PLAY AGAIN = no sound / geen klank

1. Press Reset button at back of synthesizer. Druk Reset button op agterkant van sintetiseerder.

2. Press Druk **shift-back** **3.** Press Druk **lab**

4a. If working with 'Intervals' touch box marked ☐ Clarinet (the synthesizer's normal sound) on the screen. As jy 'Interval' lesse doen, druk blokkie ☐ Clarinet (die sintetiseerder se gewone klank) op die skerm. **4b.** If working with 'Rhythms' touch box marked ☐ Sound for Rhythm Drill. As jy met 'Ritme' lesse werk, druk blokkie ☐ klank vir Ritmiese oefeninge.

5. Press **shift-next** and continue working. (Press **play again** to hear the interval/rhythm again).

Druk **shift-next** en gaan voort met lesse. (Druk **play again** blokkie om interval/ritme weer te hoor).

If there is still no sound, repeat the above steps 1-5 then press SHIFT-NEXT (again) and continue.

As daar weer geen klank is, doen hierdie stappe nr. 1-5 oor, dan druk SHIFT-NEXT (weer) en gaan voort.

note: If the PLAY AGAIN box disappears from screen, it is <u>not</u> an error. This means you have had your number of chances to hear the interval/rhythm again. **L.W.** As die PLAY AGAIN blokkie verdwyn van die skerm, is dit <u>nie</u> 'n fout nie. Dit beteken jou kanse om die interval/ritme weer te hoor is klaar.

To Carry on with Units after PRACTICE UNIT

Om voort te gaan met lesse na PRACTICE UNIT

1. Press LAB Druk LAB

2. Type the number of the unit you want (i.e: the next unit's number). Tik die nommer van die les jy wil hê (d.w.s: die volgende les se nommer).

3. Press NEXT Druk NEXT

RHYTHM

When working with Rhythm lessons, you must set the synthesizer to "Sound for Rhythm Drill"

To do this:

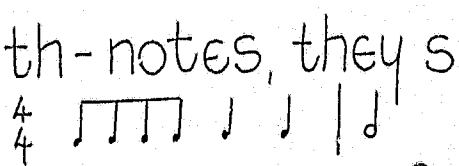
1. Load disk (see instructions).
2. Get to page that begins: "Is your synthesizer on?"
3. Press lab
4. Touch box marked ☐ Sound for Rhythm Drill
5. Continue with your lessons

GROUPING OF NOTES

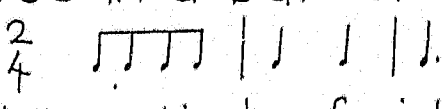
Rule: Group together as many notes as make one beat.

Exceptions:

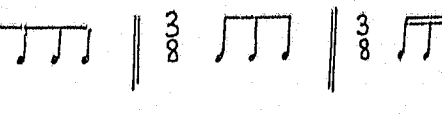
a) In a bar of $\frac{4}{4}$ time, if the first two or the last two beats consist of eighth-notes, they should be grouped together:



b) The four eighth-notes in a bar of $\frac{2}{4}$ time should be similarly grouped:

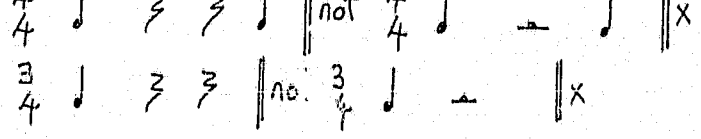


c) If a bar of $\frac{3}{4}$ or $\frac{3}{8}$ consists entirely of eighth-notes, or a bar of $\frac{3}{8}$ time entirely of sixteenth-notes, then all the notes should be grouped together:



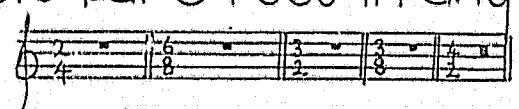
GROUPING OF RESTS

Rule: a separate rest should be used for each silent beat

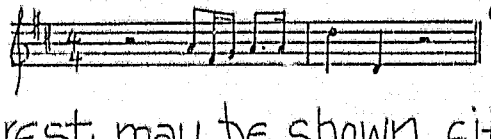


Exceptions:

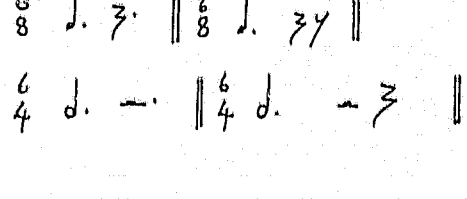
a. a whole-note rest is used for a whole bar's rest in any time except $\frac{4}{2}$, when a breve rest is used:



b. In quadruple time, a half-bar's rest either at the beginning or end of the bar is shown by a single rest:



c. In compound time, a one-beat rest may be shown either by a dotted rest or by two rests:



TABLES

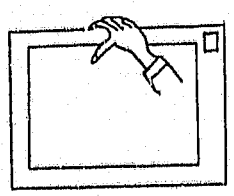
Every disk is set on Table 1. If you need to work with another table (eg: Interval Dictation : Disk 11 (Table 2), call the supervising lecturer: . Lock the door.

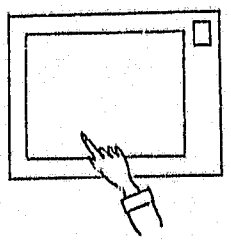
Elke skyf is op Table 1 gestel. As jy met 'n ander table moet werk (b.v.b: Interval Dictation : Disk 11 (Table 2), roep die dosent in beheer: . Sluit die deur.

HINTS

a) If working with 'Intervals' rest right hand on top of monitor and touch interval boxes with your right-hand thumb. as jy 'Interval' lesse doen, rus regte hand bo-op monitor en druk interval blokkies met duim van regte-hand

b) If working with 'Rhythms' rest right-hand fingers on ledge at bottom of screen & touch rhythm boxes with forefinger. as jy Ritme lesse doen, rus regte hand vingers op rand onderkant skerm en druk ritme blokkies met wysvinger.

a 

b 

RHYTHM lessons RITME lesse

Sometimes you may see a very strange time signature, like: $\frac{7}{16}$, $\frac{7}{4}$, etc.
Sometyds jy sien 'n vreemde tydmaat-teken soos: $\frac{7}{16}$, $\frac{7}{4}$, ens.

If this happens, ignore it and :-
As dit gebeur, ignoreer hierdie vraag en :-

1. Press stop - to stop playing of the rhythm
   Druk stop - om die klank te staak
2. Press shift-next to continue with lesson
   Druk shift-next om voort te gaan

SOMETIMES the screen goes haywire! Lines become compressed and impossible to read.
SOMTYDS kan jy die beelskerm nie lees nie en lyne word gedruk.

If this happens :	As dit gebeur :

1. Switch off monitor only. NB: You must not switch off disk drive with a disk inside.
   Skakel net die monitor af. LW: Jy moet nie die skyfaandrywer afskakel nie as 'n skyf daarin is.
2. Wait five minutes and switch monitor on again.
   Wag vyf minute en skakel weer die monitor aan.
3. If there is no improvement, call me or one of the lecturers in studio nos.
   As daar geen verbetering is nie, roep my of een van die dosente in ateljee nrs.



Remember to fill in LOG BOOK

Onthou om LOGBOEK in te vul

Example: Voorbeeld:

Chopin

Today's date	Time	Disk number	Units completed	Last at	Lecturer's initials
1985-05-12	14h00-14h30	1	1-15	15	

When you have finished: *Wanneer jy klaar is:*

1. Press **BACK** repeatedly until you return to **LIST OF UNITS**.

   Druk **BACK** herhaaldelik totdat jy by **LIST OF UNITS** kom.

2. The asterisks (*) mark the units (lessons) you have completed and the arrow (→) shows where you were last working. Die sterretjie (*) wys watter lesse voltooi is en die pyl (→) waar jy laas besig was.

3. Fill in log-book correctly. Note the time on the clock in front of you.
   Vul die logboek korrek in. Let op die tyd (daar is 'n oorlosie voor jou.).

4. Call one of the lecturers in studio no's. to clear the computer.
(N.B: Lock the door.) This lecturer must initial your log-book.
Roep een van die dosente in ateljee nrs. om die rekenaar skoon te maak.
(L.W: Sluit die deur). Hierdie dosent moet jou logboek met voorletters teken.

5. Remove disk and switch off (see instructions). Neem skyf uit en skakel af (sien instruksies).

6. Lock the door and return Key to the lecturer. Sluit die deur en gee sleutel terug aan die dosent.

APPENDIX L. CAMETS PROJECT: TEST RESULTS AND STUDENT RECORDS

APPENDIX 12: CAMETS project: test results and student records

Student no.	Age	Sex	Lang.	Grade Present	Grade Expected	Theory	Exp.	INTERVAL RECOGNITION Pre	Post	Re	RHYTHM DICTATION Pre	Post	Re
1	12	F	A	5	8	Y	I	80.00	70.00	60.00	53.80	17.70	22.40
2	12	M	G	1	4	N	I	20.00	60.00		26.00	42.10	
3	11	F	A	3	6	N	R	70.00	90.00	90.00	19.20	49.50	49.60
4	15	F	A	6	8	Y	R	60.00	55.00		52.00	62.80	
5	11	F	A	1	4	Y	R	20.00	40.00	40.00	33.30	92.00	88.70
6	13	M	A	3	6	Y	I	80.00	45.00		39.80	51.30	
7	15	M	G	2	5	N	I	15.00	35.00	30.00	21.60	36.50	35.10
8	12	F	A	3	6	Y	R	45.00	50.00	60.00	41.10	43.50	41.30
9	14	M	G	2	5	Y	I	40.00	70.00		42.00	47.50	
10	11	M	G	1	4	N	I	53.30	60.00	60.00	33.60	47.50	62.90
11	13	F	G	1	4	N	I	40.00	40.00	80.00	14.50	29.00	32.40
12	13	M	G	4	7	Y	R	20.00	70.00	80.00	22.50	50.40	49.30
13	11	F	G	1	4	N	I	20.00	40.00	40.00	39.50	55.00	59.70
14	14	M	G	2	5	Y	R	50.00	45.00	40.00	15.40	34.00	40.30
15	13	M	G	2	5	N	I	40.00	45.00	30.00	9.20	49.50	16.60
16	11	F	G	1	4	Y	R	40.00	80.00	73.30	26.20	25.50	32.10
17	12	M	G	5	8	Y	R	70.00	60.00		41.20	59.80	
18	11	M	G	2	5	Y	R	20.00	40.00	35.00	23.00	23.50	31.90
19	13	M	G	1	4	N	I	40.00	80.00	86.60	51.90	13.10	24.40
20	13	M	A	2	5	N	R	30.00	80.00		5.00	40.00	
21	12	M	G	2	5	Y	I	100.00	100.00	100.00	25.10	56.70	57.10
22	11	M	A	2	5	N	I	60.00	100.00	90.00	30.40	57.30	52.00
23	12	F	A	2	5	N	I	80.00	100.00	90.00	31.60	44.10	35.20
24	15	F	A	3	6	N	I	70.00	70.00	50.00	19.50	69.00	64.50
25	15	F	G	5	8	Y	I	40.00	50.00		63.20	67.40	
26	12	F	G	1	4	N	R	53.30	33.30		37.00	25.00	
27	12	F	G	3	6	Y	R	55.00	40.00		17.90	21.00	
28	15	F	G	6	8	Y	R	20.00	40.00	30.00	7.40	27.70	26.10
29	13	M	G	1	4	N	R	33.30	40.00	33.30	16.20	29.00	34.40
30	12	F	E	1	4	N	I	13.30	40.00		37.40	97.50	
31	11	F	G	3	6	N	I	40.00	[illegible]00		11.30	33.10	
32	12	M	A	3	6	Y	I	50.00	90.00	70.00	26.30	48.80	47.40
33	11	M	G	1	4	N	R	33.30	40.00	33.30	46.90	65.00	69.90
34	12	M	E	3	6	Y	R	65.00	90.00	100.00	57.60	73.00	76.50
35	14	M	A	5	8	Y	I	30.00	50.00	55.00	22.50	11.40	15.70
36	11	M	A	2	5	Y	R	25.00	40.00	60.00	44.10	77.80	83.90
37	13	M	G	1	4	Y	R	13.30	13.30	20.00	.00	47.40	51.40
38	13	F	A	5	8	Y	R	20.00	30.00		15.50	32.10	
39	14	F	A	1	4	Y	R	50.00	60.00	80.00	35.70	45.80	93.00
40	12	F	A	2	5	Y	R	40.00	30.00	45.00	30.70	90.00	85.00
41	13	M	A	3	6	N	R	70.00	50.00	50.00	29.80	41.50	40.80
42	13	M	G	2	5	N	I	25.00	70.00	60.00	44.90	69.00	47.70
43	15	M	G	6	8	Y	I	50.00	55.00	40.00	21.60	53.50	54.70
						MEANS:		43.95	57.13	58.44	29.85	47.75	49.10

Key to column titles:

Lang.
- E: English
- G: German
- A: Afrikaans

Theory
- Y: Theory classes
- N: No theory classes

Exp.
- I: Intervals (CAI)
- R: Rhythm (CAI)

Pre / Post / Re
Test scores for relevant test

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