7 + Entrance Examination

Paper 6

Numeracy / Maths

Total marks: 68
Time allowed: 1 hour

Full name …………………………………

1. **Balance these equations.** (4 marks)

    a. $6 \times \underline{} = 19-1$

    b. $25-10 = 3 \times \underline{}$

    c. $3 \times 2 = 12 \div \underline{}$

    d. $45 - \underline{} = 25+10$

2. **Change the times below into words. The times are in the 24 hour clock.** (5 marks)

03:15	
19:15	
21:45	
00:00	
10:05	

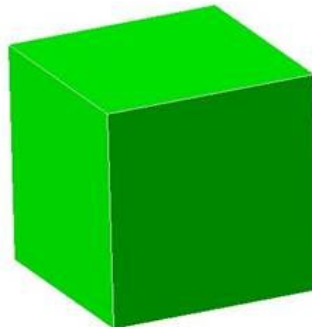**3. You walk into a room and see these four objects.**

a. Which object do you think is the heaviest ? (1 mark)

_____

b. Which object do you think is the lightest? (1 mark)

_____

c. Can you estimate the weight of the piano in kg ? (1 mark)

_____

4. How many squares are on this cube? (2 marks)

_____

5.a How many minutes are there in an hour? _____(1 mark)

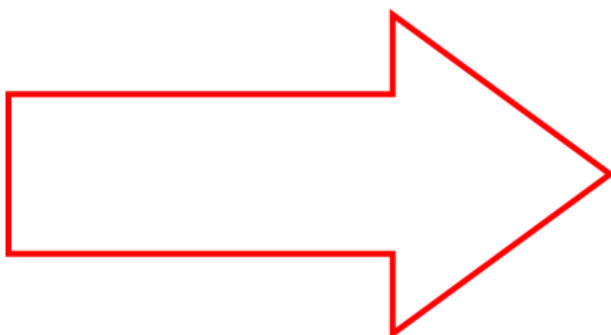**b. How many hours are there in a day?** _____ (1 mark)

c. How many seconds are there in a minute? _____(1 mark)

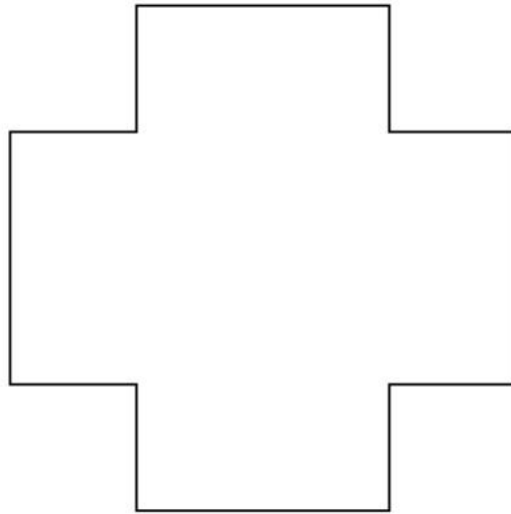**d. How many days are there in a week?**_____(1 mark)

6. This man does a quarter turn clockwise. In the space provided draw the position of the man now. (2 marks)

7. How many right angles can you see in this picture? _____ (1 mark)

8. Draw lines of symmetry on this shape. (4 marks)

9. Round these numbers to the nearest 10. (4 marks)

27	
35	
91	
99	

10. Convert this money into pence. (4 marks)

£4	
£1.40	
£2.80	
£9.50	

11. Complete these problems using the written method of division. (6 marks)

a. $3\sqrt{36}$ d. $5\sqrt{55}$

b. $2\sqrt{48}$ e. $10\sqrt{90}$

c. $4\sqrt{88}$ f. $3\sqrt{27}$

12. Solve these problems. (4 marks)

a. ½ of 20 =

b. ⅓ of 6=

c. ½ 100=

d. ¼ 20=

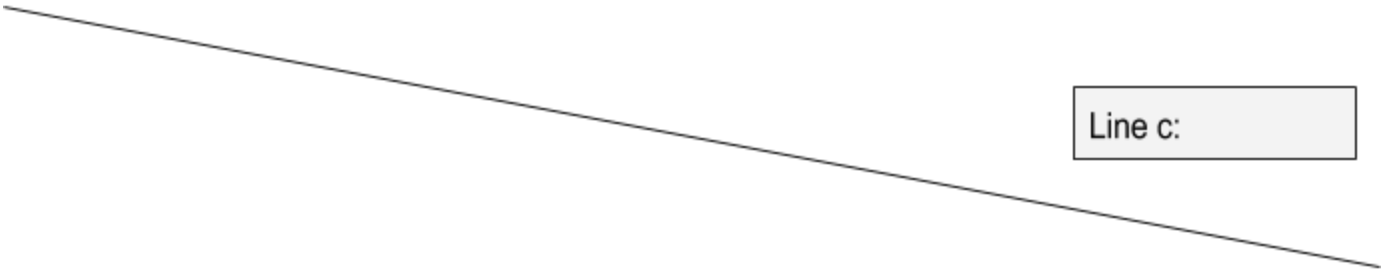**13. Measure these lines to the nearest cm.** (4 marks)

Line a:

Line b:

Line c:

Line d:

14.

Convert these measurements into metres. (3 marks)

Measurement in centimetres	Measurement in metres
224 cm	
182 cm	
25 cm	

15. Solve these number sentences. (4 marks)

$$a. 8 \times 10 =$$

$$b. 90 \times 10 =$$

$$c. 70 \div 10 =$$

$$d. 550 \div 10 =$$

16. Solve these word problems.

a) Nick and Tom cut pieces of string. Nick's string is 25 cm longer than Tom's. Tom's string is 13cm long. What is the difference in length between their pieces of string? (2 marks)

_____

b) Sally wakes up at 7am. She spends half an hour eating breakfast. Then she cleans her teeth for 5 minutes. She then spends 10 minutes getting dressed. What time might she be ready to leave the house? (2 marks)

_____

c) A bag of sugar weighs 1 kg and the pasta weighs 50 grams. A handful of spaghetti weighs 15 grams. How much do these things weigh altogether in

grams? (2 marks)

_____

d) Steve thinks that 17:00 is a time in the morning. Is he correct? Explain your
    answer. (2 marks)

_____

e) Louise spent 4 hours at home yesterday. Max spent one hour less than Louise
    at home. Sally spent 3 times the amount of Louise at home. How much time
    did Sally spend at home? (2 marks)

_____

17. Complete the missing numbers. Tip: Vertical numbers always go up in tens.

a)

21		23	
			34
	42		

(2 marks)

b)

44		48	
	56		
			70

(2 marks)

7 + Entrance Examination - Maths Paper 6 - Numeracy Mark Scheme
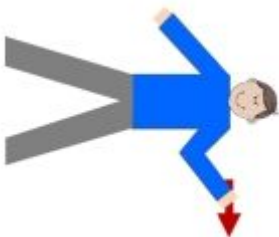
Total Marks: 68

1. a) 3, b) 5, c) 2, d)10
2.

03:15	Quarter past three in the morning
19:15	Quarter past 7 in the evening
21:45	Quarter to ten at night
00:00	Midnight
10:05	Five past ten in the morning

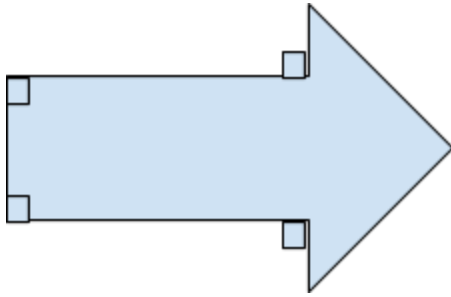**3.** a) Piano, b) balloon, c) any realistic number given between 50 and 500 kg.
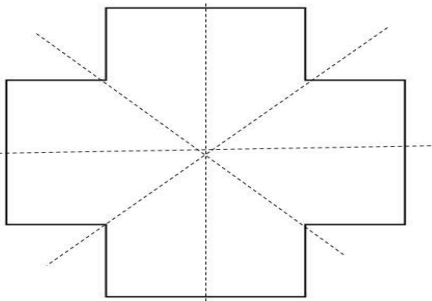
4. 6

5. a)60, b) 24, c) 60, d) 7

6.

7. 4 right angles

8.

9.

27	30
35	40
91	90
99	100

10.

£4	400p
£1.40	140p
£2.80	280p
£9.50	950p

11. a)12, b) 24, c) 22, d)11, e) 9, f) 9

12. a)10, b)2, c)50, d)5

13. Answers depends on size of printed paper, but if printed on A4: Line a= 7cm, line b=5cm, line c=19cm, line d=3cm.

14.

Measurement in centimetres	Measurement in metres
224 cm	2.24 m
182 cm	1.82 m
25 cm	0.25 m

15. a) 80, b)900, c) 7, d) 55

16. a)25 cm, b) 7:45 am, c)1065 grams, d) No he is wrong because 17:00 is a time in the 24 hour clock and it means 5 o'clock in the afternoon, e) 12 hours.

17. Complete the missing numbers.

21	22	23	24
31	32	33	34
41	42	43	44

If two numbers are in the incorrect place allow 1 mark

b)

44	46	48	50
54	56	58	60
64	66	68	70

If two numbers are in the incorrect place allow 1 mark