8 + Entrance Examination

Paper 5

Numeracy / Maths

Total marks: 79

Time allowed: 40 minutes

Full name …………………………………..

1. **Write the following in words:** (2 marks)

   a. 3231 _____

   b. 1105 _____

2. **Write the following numbers in order of size from the smallest to the largest:** (1 mark)

   8133   8311   3888   8313   3031   3108

   _____

3. **Complete the missing numbers in the sequences below:** (6 marks)

   a. 214, 224, 234, 244, _____ , _____

   b. 8060, 8050, 8040, 8030, 8020, _____ , _____

   c. 34, 35, 37, 40, 44, _____ , _____

   d. 450, 440, 430, 420, 410, _____ , _____

   e. $\frac{8}{10}$, $\frac{7}{10}$, $\frac{6}{10}$, $\frac{5}{10}$, _____ , _____

   f. 1:15pm, 1:45pm, 2:15pm, 2:45pm, _____ , _____

4. **Use the column method to solve the following problems:** (6 marks)

   a. 452 + 87 = _____

   b. 43 + 299 = _____

c. 871 - 32 = _____

d. 43 + 27 + 87 = _____

e. 44 + _____= 55 + 12

f. 40 + 30 = _____ - 20

5. **Aysha has £28. She wants to buy a new coat for £81. How much more money does she need to save to buy the coat?**

_____ (2 marks)

6. **A train ticket costs £45. How much will 6 tickets cost?**

_____ (2 marks)

7. Circle 3 numbers that divide by 8 with no remainder: (1 mark)

15	22	96
32	88	12
18	26	44
41	8	9

8. This is a magic number square of 15. The numbers in every column and every row add up to 15.

5	3	7
9	4	2
1	8	6

Complete the following magic number square of 15. Use the numbers 1-9. Use each number only once. (1 mark)

8		6
		7

9. **Helen got 96 marks in a test. Kim got 36 marks fewer than Helen. Simon got half the number of marks that Kim got. How many marks did Simon get?**

_____ (2 marks)

10. **There are 27 children in a class. Each table in the class seats 9 children. How many tables are needed to seat all the children in the class?**

_____ (2 marks)

11. **Fill in the answer to the following questions:** (11 marks)

a. 7 x 8 = _____

b. 3 x 1 = _____

c. 49 ÷ 7 = _____

d. 77 ÷ 11 = _____

e. 13 x 0 = _____

f. 121 x 1 = _____

g. 45 x 10 = _____

h. 100 x 32 = _____

i. 7300 ÷ 1000 = _____

j. 13 x 20 = _____

k. 32 x 200 = _____

12. **Mr Evans bought a weekly newspaper costing 65p. If he bought the newspaper for 8 weeks, how much would he spend all together on newspapers?**

_____ (2 marks)

13. **Use the written method of division to answer the question below, giving a remainder in your answer if necessary. Write your final answer on the line under the question.**

$$4\sqrt{248}$$

_____ (2 marks)

14. It takes Oscar 25 minutes to walk to work in the morning. What is the latest time that he can leave his house to get to work for quarter to nine? Give your answer in digital time.

_____ (2 marks)

15. Bill has saved some money. He has worked out that $\frac{1}{4}$ of the money he has saved totals £25. How much money has he saved?

_____ (2 marks)

16. This arrow turns two quarter- turns anti-clockwise. In the box provided draw the position of the arrow now. (1 mark)

17. Round 2356: (3 marks)

    a. To the nearest 10 _____

    b. To the nearest 100 _____

    c. To the nearest 1000 _____

18. It takes me 15 minutes to walk one kilometre. How many kilometres would I walk in 1 hour 30 minutes?
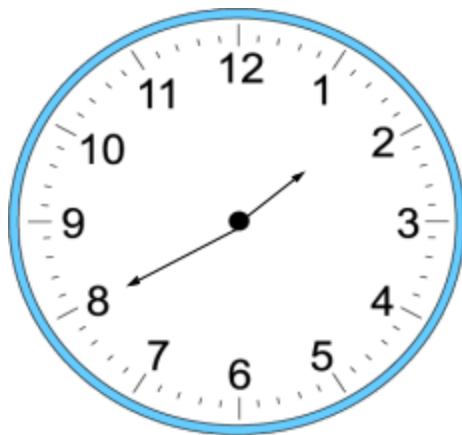
_____ (2 marks)

19. Bret has £32. He gives ¼ of his money to charity. How much money does he have left?

_____ (2 marks)

20. **These are times shown on the clock in the <u>afternoon or pm</u>. Write the times shown on the clock faces in 24 hour time:**
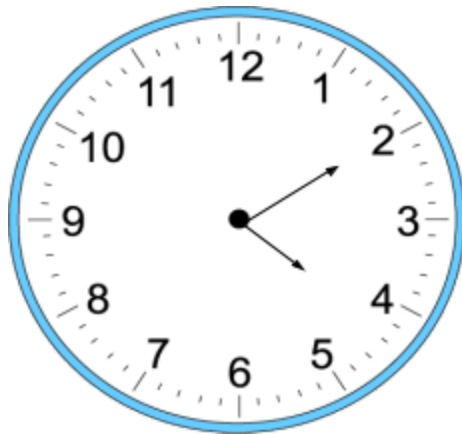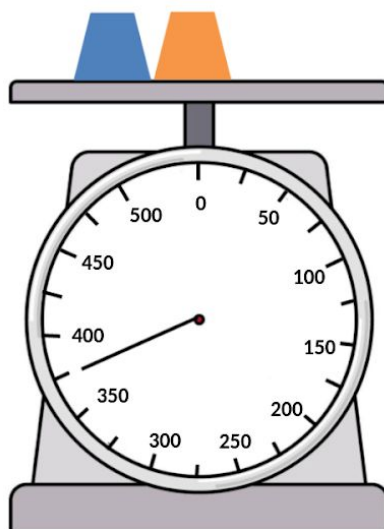

a. _____:_____ (1 mark)

b. _____:_____ (1 mark)

21. The scale below shows the total mass of an orange and a blue block in grams.

a. What is the total mass of the two blocks? _____ g (1 mark)

b. What would be the total mass of 2 orange blocks and 2 blue blocks?

_____ g (2 marks)

22. Circle 2 numbers that add up to 110: (1 mark)

25	10	75
90	55	30
35	80	95
45	40	85

23. Answer the following questions: (3 marks)

a. How many centimetres (cm) are in $2\frac{1}{2}$ metres? _____

b. How many grams (g) are there in 3.5 kilograms? _____

c. How many metres (m) are there in $1\frac{3}{4}$ kilometres? _____

24. A class of children were asked to vote for their favourite animal. Here is a chart that shows which animals they voted for.

Favourite animal	Cat	Dog	Elephant	Pig	Snake	Giraffe
Number of children	5	10	8	6	2	12

a. How many children took part in the vote altogether? _____ (1 mark)

b. Which was the most popular animal? _____ (1 mark)

c. How many more people voted for a dog than a snake? _____ (1 mark)

25. **My mum is buying tickets for the theme park. Tickets cost £14 for an adult and £6 for a child. My mum has £49.80 in cash.**

    a. How much will the tickets cost for two adults and three children?
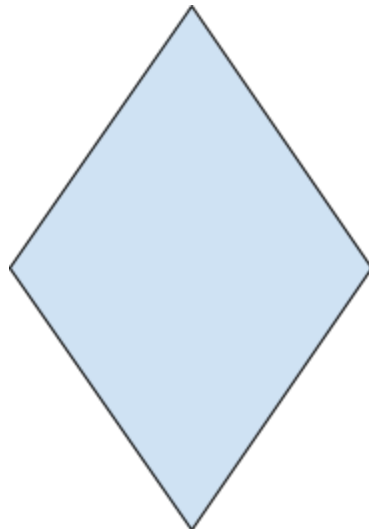
    _____ (2 marks)

    b. If my mum pays with cash, how much money will she have left?

    _____ (2 marks)

26. **Tommy and Jack both had £34 each. Tommy lost £5 of his money. How much money do Tommy and Jack have left altogether?**

    _____ (2 marks)

27. **Find and draw all the lines of symmetry on this shape.** (2 marks)

28. **What number should replace the * symbol so the following fractions are equivalent?**

a. $\frac{4}{10} = \frac{*}{5}$ _____ (1 mark)

b. $\frac{2}{8} = \frac{1}{*}$ _____ (1 mark)

c. $1 = \frac{*}{9}$ _____ (1 mark)

29. **39 children are going to the zoo in minibuses. Each minibus seats 6 children. How many minibuses will be required?**

_____ (2 marks)

30. **Jackie bought a magazine costing 75p and some sweets costing 15p every week from the shop. How much money will Jackie spend on magazines and sweets in 5 weeks? Give your answer in pounds and pence.**

_____ (2 marks)

8 + Entrance Examination
Paper 5
Mathematics Marking Scheme

Total marks: 79

For questions where two marks are available, one mark should be awarded for a correct answer, and one mark given for showing working.

1.
   a. Three thousand, two hundred and thirty one
   b. One thousand, one hundred and five

2. 3031, 3108, 3888, 8133, 8311, 8313

3.
   a. 254, 264
   b. 8010, 8000
   c. 49, 55
   d. 400, 390
   e. $\frac{4}{10}$, $\frac{3}{10}$
   f. 3:15pm, 3:45pm

4.
   a. 539
   b. 342
   c. 839
   d. 157
   e. 23
   f. 90

5. £53
6. £270
7. Possible numbers circled: 8, 32, 88, 96
8. Ensure numbers in every column and every row add up to 15.
Example:

8	1	6
4	**9**	**2**
3	**5**	7

9. 30
10. 3

11.
   a. 56
   b. 3
   c. 7
   d. 7
   e. 0
   f. 121
   g. 450
   h. 3200
   i. 7.3
   j. 260
   k. 6400
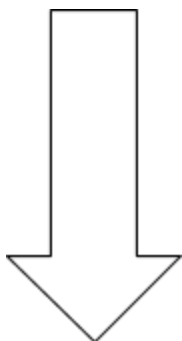
12. £5.20
13. 62
14. 8:20am
15. £100
16.

17.

a. 2360
b. 2400
c. 2000

18. 6 kilometres
19. £24

20.
   a. 16:10
   b. 13:40

21.
   a. 375g
   b. 750g

22. Possible combinations: 25+85, 35+75, 80+30
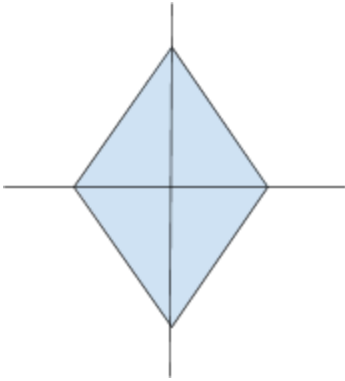
23.
   a. 250cm
   b. 3500g
   c. 1750m

24.
   a. 43
   b. giraffe
   c. 8

25.
   a. £46
   b. £3.80

26. £63

27.

28.
   a. 2
   b. 4
   c. 9

29. 7
30. £4.50