7 + Entrance Examination
Sample Paper
Mathematics

Total marks: 84
Time allowed: 1hour

Information for parents:

This sample paper has been created for children who are embarking on the 7+ exam. We recommend that these papers are only used 3 months prior to the exam.

The questions within the paper follow Level 3 of the National Curriculum and cover the entirety of the Year 2 Maths curriculum, therefore we strongly advise that students younger than Year 2 do not attempt these papers.

The papers are designed to be challenging, and it is not expected that students will achieve full marks. Although the 7+ exams are highly competitive, it is important to remember that schools are likely to be looking for potential rather than 100% accuracy.

Should you wish for your child to prepare for the 7+ exam before Year 2, we suggest revising individual concepts and playing active Maths games before embarking on more formal revision or sample papers.

Full name ………………………….

Answer the questions below. Don't forget to show your working.

1a. Grandma likes to knit mittens. Today she knitted 8 mittens. How many pairs was that?

——————— 2 marks

b. Mum baked cookies and gave 3 each to Jim and Jane. How many cookies did Mum cook altogether?

——————— 2 marks

c. There were 16 cars in the garage. As 6 drove away, 7 more drove in. How many cars are in the garage now?

——————— 2 marks

d. John bought 20 sweets and decided to share them between him and his 4 friends. How many sweets does John have now?

——————— 2 marks

e. Woodlands School have 6 minibuses. If each bus can hold 8 pupils, how many children can the buses hold altogether?

——————— 2 marks

2a. Amy receives a sticker from her teacher after she has read 3 books. Amy has now read 9 books. How many stickers does she have in total?

——————— 2 marks

2b. Amy has 9 stickers at the end of term.
How many books has she read?

_____ 2 marks

3a. Ben is 20cm shorter than his sister Sally.
Ben is 110cm tall. How tall is Sally?

_____ 2 marks

b. Ben has 20 building blocks and decides
to give a quarter of them to Sally. How
many does Ben have left?

_____ 2 marks

c. Sally goes to dancing lessons and Ben
goes to football lessons. If Sally dances
twice a week, how many times does she
go dancing in 2 weeks?

_____ 2 marks

4. _Can you work out the answers to these sums? Put your answers in
the box._

a. 14 + 12 =

b. 17 – 9 =

c. 6 + 16 = ☐

d. 11 - 9 = ☐

e. 8 + 6 = ☐

f. 53 – 8 = ☐

g. 4 x 5 = ☐

h. 10 x 4 = ☐

i. 18 + 5 – 4 = ☐

j. 5 + 11 – 2 = ☐

k. 32 + 9 – 12= ☐   11 Marks

5. *Add the correct symbol into the missing squares:* **x, +, -**

5a. 8 ⬚ 4 = 4

b. 10 ⬚ 10 = 20

c. 4 ⬚ 0 = 0

d. 10 ⬚ 2 = 8

e. 29 ⬚ 12 = 17   5 marks

6. *Can you put the missing numbers into the boxes?*

```
  1 ⬚          5 ⬚              4  3            2  4
+ 2  2        - 1  3         x      3         x
 ─────        ──────         ───────          ────────
  3  5         3  9          ⬚  2  9          1 ⬚  0
```

4,   8,   12, ⬚ , 20,

4,   8,   ⬚ , ⬚ , 64

⬚ , 90,   81,   73, ⬚ , 60, ⬚ , 51,   48,   46,   45

11 marks

7. *The bar graph below shows how many hours of television the children of Woodlands School watched in a week.*

How many hours of television do you watch a week?

a.How many children watched 1 – 2 hours of television a week?
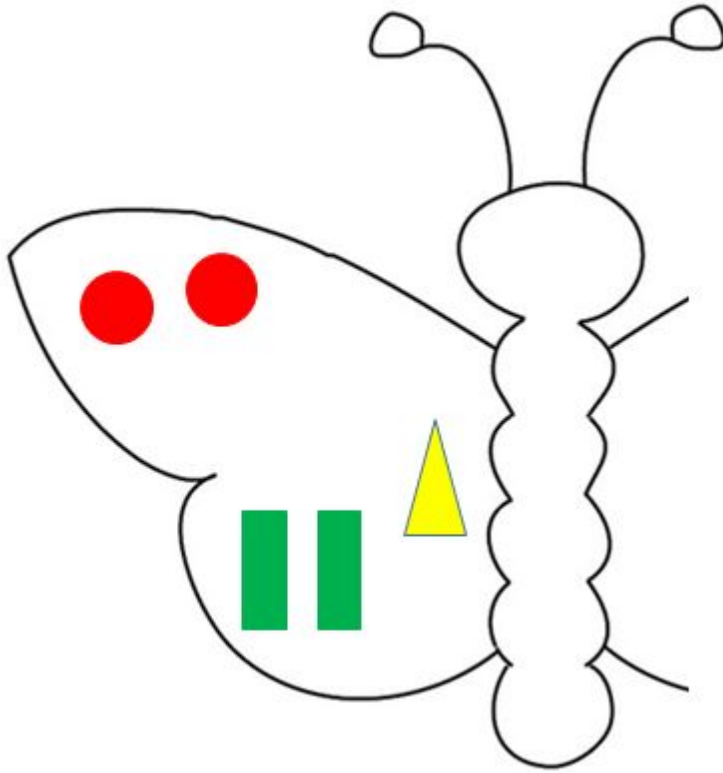
_____

b. Estimate how many children watched television 5-6 hours a week.

_____

c. How many more children watched 3-4 hours television compared to those who watched 10 + hours of television?

_____

d. How many hours are in a day?

_____

4 marks

8. *Can you make the butterfly symmetrical?*

4 Marks

9.

| 35p | 22p | 30p | £1.50 |

a. Toby went to the school fair. His mum gave him £1 and two 50 pence pieces. He wanted to buy the car for himself, the doll for his sister and one bear for his baby brother. Did he have enough to buy them all?

_____ 2 marks

b. How much would it cost Toby if he wanted to buy the car, the teddy and the ball?

_____ 2 marks

c. How many teddies could Toby buy with £1?

_____ 2 marks

d. In the end, Toby decided to buy the doll and the ball. How much change did he receive if he paid with £1?

_____ 2 marks

e. When Toby got his change, he dropped 20p! He was left with three coins. What coins were they?

_____ 3 marks

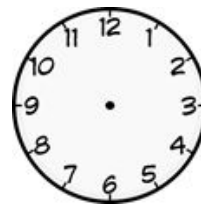10. *Tick the shapes that have at least one right angle.*

2 marks

11. *Match the items on the left to how much you think they weigh. The first one has been done for you.*
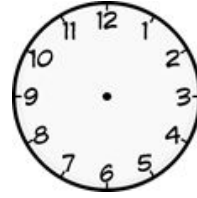
A grown man   10g

A bag of sugar   75kg

A cup of water   1kg

A pencil   200g   3 marks

12a. Cinderella is half an hour early for her ball at 7.30pm Draw hands on the clock face to show what time she arrived.

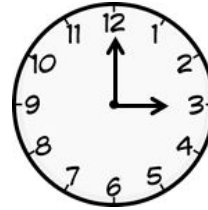
1 mark

b.   Mrs Brown is running late! She arrives at school 15 minutes after 9am. Draw hands on the clock face to show what time she arrives at school.
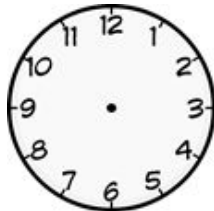

1 mark

c.   Look at the clock. What time does the school bell ring at the end of the day? Write your answer on the line below.

1 mark

_____
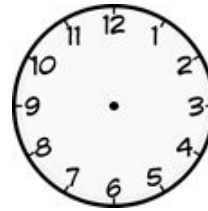
d.   Look at the times on the digital clocks. Draw clock hands on the analogue clocks to show the same times.

2:30

7:30

2 marks

6. *Look carefully at this diagram*
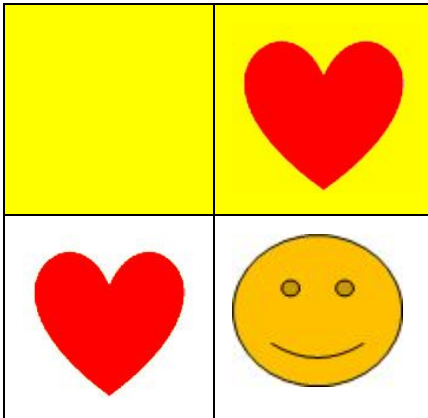
What fraction of the grid is yellow?

What fraction of the grid has a picture in it?

What fraction of the grid has a smiley face in it?

What fraction of the grid is white with a red heart?

4 marks

14. *Using the numbers 1 – 9 once only, fill this magic square so that the three numbers in each line add to make 15.*

8		
	5	7
4		2

4 marks

7 + Entrance Examination
Sample Paper
Mathematics Marking Scheme

Total Marks: 84

In questions 1-3, one mark is awarded for a correct answer, and one mark is given for showing working.

1a. **4**

b. **6**

c. **17**

d. **4**

e. **48**

2a. **3**

b. **27**

3a. **130cm (half a mark deducted for missing units)**

b. **15**

c. **4**

4a. **26**

b. **8**

c. **22**

d. **2**

e. **14**

f. **45**

g. **20**

h.   **40**

i.   **19**

j.   **14**

k.   **29**

5a.   **-**

b.   **+**

c.   **x**

d.   **-**

e.   **-**

6.

```
  1 │3│            5 │2│                  4  3                 2  4
+ 2  2            -1  3             x     3            x      │5│
 ─────            ─────            ─────────           ──────────
  3  5             3  9           │1│ 2  9             1 │2│ 0
```

4,   8,   12,   **16**,   20,

4,   8,   **16,**   **32,**   64

100   90,   81,   73,   **66**,   60,   **55**,   51,   48,   46,   45

7a.   **20**

b.   **(23-25)**

c.   **60**

d.   **24**

8. Red circles in correct place = 1 mark
Yellow triangle in correct place = 1 mark
Green rectangles in correct place = 1 mark
Accurate drawing of wings = 1 mark

In question 9, half marks are deducted for missing £ and p.

9a.   **No (one mark also given for working)**

b.   **£2.02 (one mark also given for working)**

c.   **3 (one mark also given for working)**

d.   **43p (one mark also given for working)**

e.   **20p, 1p, 2p (one mark also given for working)**

10.

√   √

11.   **A grown man = 75kg**
                A cup of water = 200g
                A pencil = 10g

12a.   **Clock hands showing 7 o'clock. ½ mark**
                Hour hand shorter than minute hand ½ mark

b.   **Clock hands showing quarter past 9. ½ mark**
                Hour hand shorter than minute hand ½ mark

c.   **Three o'clock (or any variant)**

d.   **Clock hands showing half past two**
                Hour hand shorter than minute hand ½ mark
                ½ mark deducted if lines not drawn with ruler

Clock hands showing half past seven
Hour hand shorter than minute hand ½ mark

13a. ½

b. ¾

c. ¼

d. ¼

14.

8	1	6
3	5	7
4	9	2