

## Key stage 2

## Mathematics

Reasoning: Set 1 Paper A

| Name |  |
|------|--|
| Date |  |











| Name: |  |  |  |  |
|-------|--|--|--|--|

Date:



## Year 5 Maths Reasoning Test Set: Paper A

1. a) Measure the following line, giving the answer in cm.

1 mark

cm

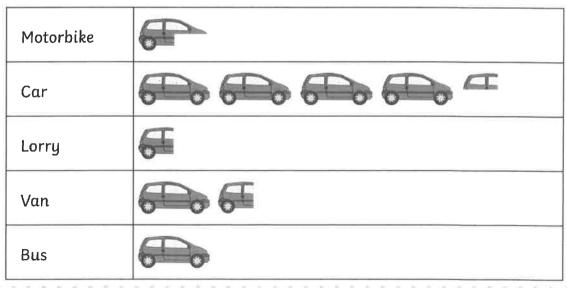
b) Measure the following line giving the answer in mm.

1 mark

\_\_\_\_\_ mn

2. Some children count the number of vehicles that pass a school in one hour. They present the data using a pictogram.

= 4 vehicles





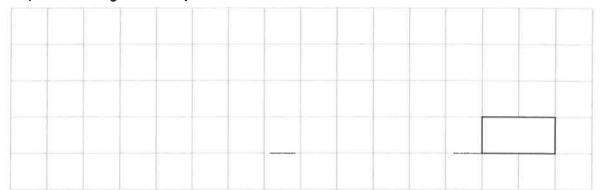


a) How many more cars passed the school compared with vans and lorries?

I mark

b) How many vehicles passed the school in total?



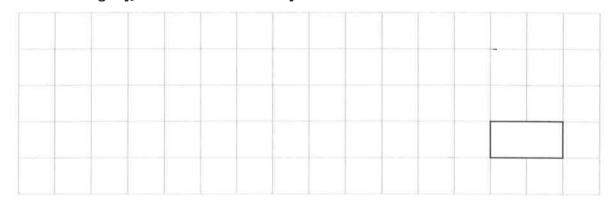


3. Sebastian has 4 football shirts, and three pairs of shorts. Each time he goes to

play football with his friends he likes to wear a different combination of one

shirt and one pair of shorts. How many different combinations of shirts and shorts can he wear?





4. Here are 2 lines.



Circle any of these words that describe these 2 lines.

perpendicular

horizontal

parallel

vertical

total for





1 mark

5. Complete these sequences

a)

| 84 91 98 105 |  | 84 | 91 | 98 | 105 |
|--------------|--|----|----|----|-----|
|--------------|--|----|----|----|-----|

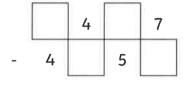
b)

| 375 | 425 | 450 | 500 |
|-----|-----|-----|-----|

1 mark

6. Fill in the missing numbers to make this subtraction calculation correct.

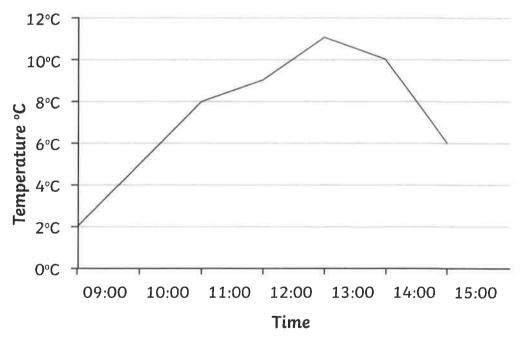
2 marks



3 6 6 4

7. Layla records the temperature in the playground every hour during the school day.

Here are the results:







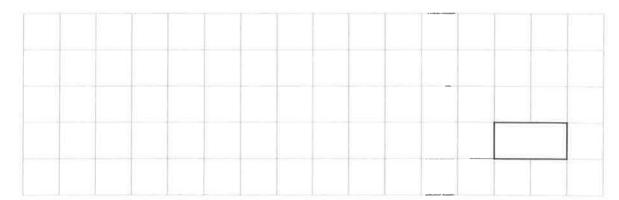
1 mark

a) What is the highest temperature recorded?



b) The temperature is 8°C twice in the day. Estimate how many minutes between these two times.





8. A scientist collects three samples of soil. They weigh 45 kg, 32 kg and 114 kg. The samples are combined and then divided into 100 packs of equal weight for testing the growth of a plant. What weight will each pack weigh? Give your answer in kilograms.



kq

9. Two of these calculations give the same answer. Circle the calculation that gives a different answer to the other two.



$$\frac{2}{3}$$
 of 48

$$\frac{5}{8}$$
 of 48

$$\frac{2}{3}$$
 of 48  $\frac{5}{8}$  of 48  $\frac{5}{6}$  of 36

10. At the end of the credits of 2 television programmes are the years the programmes were produced. Here are the years.

2 marks

**MCMXCIV** 

**MMXVI** 

How many years are there between the production of each programme?

11. 26 243 spectators attended a football match. A local newspaper reported that the attendance was twenty-six thousand. To what was the attendance rounded? Circle the correct answer.

1 mark

10

100

1000

10 000

12. Order the following fractions from smallest to largest:

1 mark

8

<u>3</u> 4  $\frac{1}{2}$ 

<u>5</u> 8 9

smallest

largest

13. Circle the numbers that are factors of both 32 and 48.

1 mark

2

3

4

5

6

7

8

10

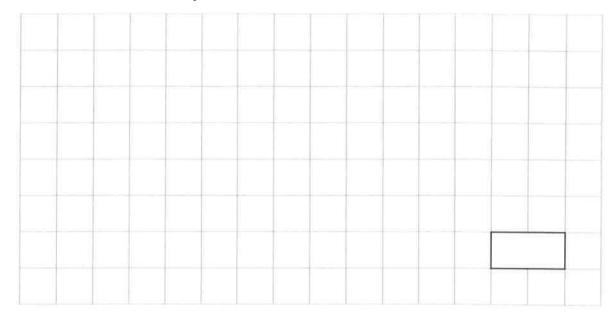
12

15

16

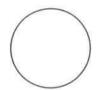
14. A school buys 16 digital cameras. Each camera costs £146. What is the total cost of the 16 cameras?

2 marks



15. Each number in a square is the total of the two adjoining numbers in circles. Calculate the three missing numbers:

2 marks



0.55

2.09



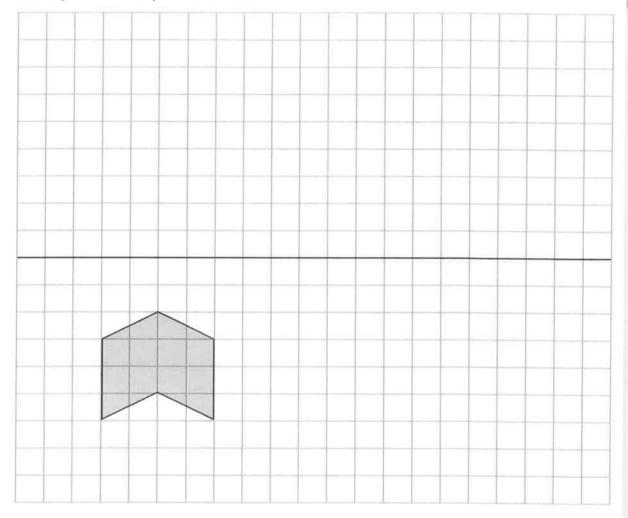
1.24



2.87

- 16. Here is a shape on a grid.a) Reflect the shape about the solid horizontal line.





b) Translate the new shape 8 places to the right.

| 1 | B | n | r | L |
|---|---|---|---|---|





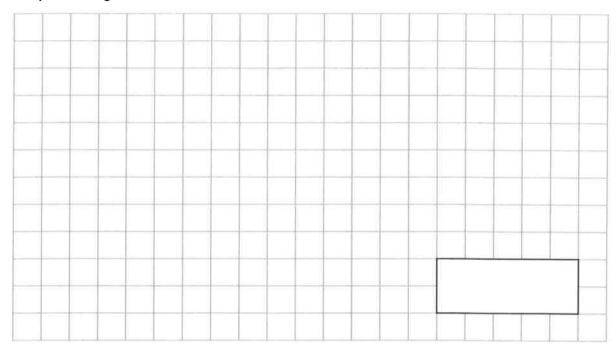
2 marks

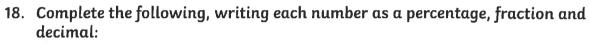
17. Anna and Shen each have a bottle of water.

Anna has a 500ml bottle and drinks half of the bottle.

Shen has a 330ml bottle and drinks three quarters of the bottle.

Explain why Anna drinks more than Shen.





$$45\% = \frac{100}{100} = 0.$$

$$\% = \frac{78}{100} = 0$$



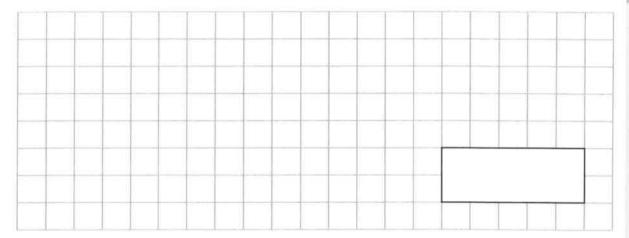
1 mark

19. Using the line on the page, draw accurately an angle of 116°.



20. A geologist measures the mass of 2 rocks. One weighs 19.072 kg, and the other weighs 3.726 kg. Calculate the difference in mass between the 2 rocks.

2 marks



\*\*END OF TEST\*\*

