Paper 7
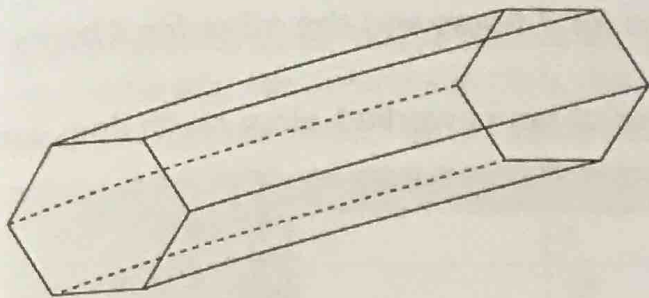
1 Write the correct sign (<, > or =) in the number sentence below. (2)

$6 + (23 \times 5)$ _____ $(11 \times 11) - 3$

2 Write the next three numbers in the number sequence below. (3)

2, 5, 11, 23, _____, _____, _____

3 What is the highest common factor of 24 and 36? _____ (2)

4 What are the prime factors of 42? _____ (1)

5 $2\frac{1}{2}$ m = _____ mm (1)

6 Write the following numbers in order of size, starting with the smallest. (1)

67 666   767 667   666 766   776 677   76 776

7 Robert has read $\frac{2}{3}$ of a book. He has 166 pages more to read. How many pages
are in the book? _____ (1)

8 What is the volume of a cuboid measuring 3.5 cm by 7 cm by 5 cm? _____ (1)

9 On the number grid, shade all the multiples of 4 and circle all the multiples of 6 (2)

33	34	35	36	37	38
43	44	45	46	47	48
53	54	55	56	57	58
63	64	65	66	67	68

10 Three consecutive numbers have a sum of 18 and a product of 210

What are the three numbers? _____ (2)

11 $\frac{4}{5} \div 2 =$ _____ (2)

12 $\frac{1}{5} \times \frac{1}{3} =$ _____ (1)

13 $4\frac{5}{6} - 2\frac{1}{6} =$ _____ (2)

14 $3\frac{2}{6} + 2\frac{3}{6} =$ _____ (2)

15 What is 15% of £660? _____ (2)

16 Jasmine, Chloe and Freddie are completing a sponsorship event to raise money for a
local charity. They raise amounts of money in the ratio 3:5:4

They raise £1068 altogether. How much does Chloe raise? _____ (3)

17 Suzanna is thinking of a two-digit number. She gives the following clues:

It is a prime number less than 30

It has two digits.

The sum of the digits is 5

What is Suzanna's number? _____ (2)

18 Small cubes have length 2 cm, width 2 cm and height 2 cm. How many of these small
cubes will fit inside a large cube with length 20 cm, width 20 cm and height 20 cm?

_____ (2)

19 The diagram shows a three-dimensional shape. Name the shape and complete the information about the number of faces, edges and vertices it has. (4)
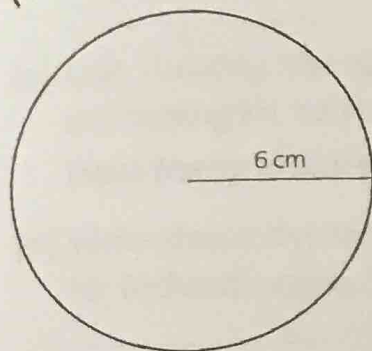
Name of shape: _____   Number of faces: _____

Number of edges: _____   Number of vertices: _____

20 The circle below has a radius of 6 cm. What is the circumference (perimeter) of the circle?

(Circumference = 3.14 × diameter) _____   (1)

6 cm

Not drawn accurately

21 A number (*n*) is divided by 4 and 6 is added to the result. Write an expression in terms of *n* for the final answer. _____   (1)

22 Work out 346 × 3 using any written method. _____   (1)

23 Work out 8736 divided by 6 using any written method. _____   (1)

24 The mass of some babies at birth is as follows.

2.9 kg   3.7 kg   3.1 kg   3.9 kg   4.2 kg   3.6 kg   3.1 kg   4.1 kg
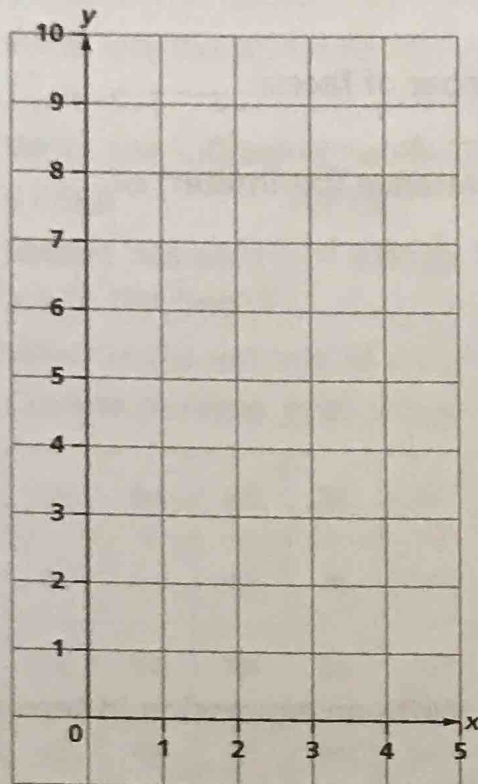
What is the mean weight? _____   (2)

25 Work out the value of *a* in the equation below.

$4(5 + 2a^2) = 52$

$a =$ _____   (4)

Turn over to the next page

26 What is the ratio of apples to oranges if there are 120 apples and 90 oranges?

_____

(1)

27 Two people are decorating a house. One works for 2 hours and the other for 3 hours. They are paid a total of £20

The money is shared in the ratio of the number of hours worked. How much does each person receive? _____

(4)

28 On the axes below, plot the line $y = 2x$.

(1)

29 2.5 cm = 1 inch

22.5 cm = _____ inches

(1)

30 Express 134 minutes in hours and minutes. _____ hours _____ minutes

(1)

Record your results and move on to the next paper

Score ☐ / 54   Time ☐ : ☐