Questions 2

1. In a school 6 out of every 11 children are girls. If there are 407 children in the school.

G : B
6 : 5 = 11 11 | 407 = 37
33
77

How many boys are there? $37 \times 5 = 185$

How many girls are there? $37 \times 6 = 222$

2. There are 6 balls, numbered 1-6 in a bag.
   What is the probability that I will draw out an even numbered ball? 3/6
   What is the possibility that I will draw out the 5? 1/6
   What is the probability that I will draw out an odd-numbered ball? 3/6

3. Find the area of a square whose perimeter is 12cm.

$\sqrt{9} = 3$ $9cm^2$

4. A football team played 6 games.
   Here are the number of goals scored in each game.
   6 0 3 2 2 5 = 18
   a) Work out the mean number of goals scored. 18/6 = 3
   b) Work out the median number of goals scored. 2.5
   c) The football team play one more game. The mean number of goals scored increases to 4. Work out the number of goals scored in the seventh game. $7 \times 4 = 28$ 10 more.

5. Write these fractions as decimals $3\frac{1}{10}$ $7\frac{9}{100}$ $4\frac{2}{5}$

3.1 7.09 4.4

6. Maya is growing sunflowers. The tallest sunflower is 1.4m. The range of the heights is 58cm. What is the height of the shortest sunflower?

140 - 58 = 82 cm.

7. A library is open 6 days each week, Monday to Saturday. Here are the number of visitors for the first 5 days of last week.

DAY	VISITORS
Monday	275
Tuesday	352
Wednesday	501
Thursday	444
Friday	513

2085

The mean number of visitors for all six days open last week was 500. $\times 6 = 3000$
Work out how many people visited the library on Saturday.

$3000 - 2085 = 915$ VISITORS

8. Shown below are 5 cards.

5	7	8	8	9

$= 35$

The mean of the cards is 7. The range of the cards is 4. The median of the cards is 8.
Work out the four missing numbers.

9. Chris is 11 years old, and Emma is 9. They are given £40 to be shared between them in the ratio of their ages. How much will each child receive?

$11+9=20$ $\quad \frac{40}{20} = 2$ $\quad \therefore 22 : 18$

10. At a rugby match the ratio of children to adults is 2:3.
There are 80 children in the crowd.
Each adult ticket costs £8.
Each child's ticket costs a quarter of the adult ticket.
Work out the total money made from the ticket sales.

$2 = 80 \therefore 1 = 40$ $\quad C : A$
$80 : 120$
£160 : £960 $= £1020$

11. Charlene and Danielle share some money in the ratio 2:3. Danielle gets £25 more than Charlene. How much does each girl receive?

C : D
2 : 3

C D
50 : 75

12. The product of 2 numbers is 1260. One of the numbers is 35. What is the other number?

$\frac{1260}{35} = 36$.

13. A cricketer's average score for 6 innings is 12 runs. What must he score in his next innings to make his average 13?

$7 \times 13 = 91$
$6 \times 12 = 72$ ∴ 19

14. Complete the table below.

Name	Number of faces	Number of vertices	Number of edges
Triangular prism	5	6	9
Square prism	6	8	12
Triangular-based pyramid	4	4	6
Square-based pyramid	5	5	8
Cube	6	8	12

15. 3 pencils and 4 ballpoint pens cost £1.70. 3 pencils and 2 ballpoint pens cost £1.30. Use this information to find the cost of:

2 ballpoint pens 40
3 pencils 3p = 90 ∴
1 ballpoint pen 20
1 pencil 30

3p + 4b = 170
3p + 2b = 130
2b = 40p

16. The population of Grangetown is 11,552. The men and children together number 8763, and the men and women number 5874.

How many women are there? 2789
How many men are there? 3085
How many children are there? 5678

11552
− 8763
W = 2789

M = 5874 − 2789 = 3085

C = 8763 − 3085 =

K S M
9 3 1 = 13

17. Share 39 sweets among Katy, Sarah and Marc giving Katy 3 times as much as Sarah and Sarah three times as much as Marc. How many sweets has:

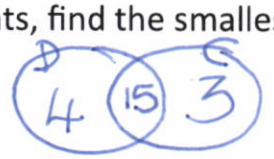
39/13 = 3

Katy? 27
Sarah? 9
Marc? 3

18. Local clubs took part in a 'clean the beach' campaign. Work out the percentage of members from each club that took part in this activity.

Club	Number of members	Number who took part	Percentage
A	100	79	79
B	50	36	72
C	150	120	80
D	70	49	70
E	80	60	75

19. In a class, 19 children have dogs, and 18 children have cats. If 15 children have both dogs and cats, find the smallest possible number of children in the class.



= 22

20. A survey was undertaken with a group of friends.
38% had been to Canada.
80% had been to France.
11% had been to neither Canada nor France.

Find the percentage of the group that had been to both Canada and France.

11 89
89
29
100
- 11
89