Chris works in a cafe.
At noon one day he records the number of customers sitting at each table in the cafe.
Here are his results.

Number of customers sitting at a table	Number of tables
0	4
1	5
2	10
3	7
4	3
5	1

Work out the mean number of customers sitting at a table.

The grouped frequency table below represents the time some pupils spent doing the dishes on one evening.

| Time (x minutes)	Frequency (f)
$0 \leq x < 5$	2
$5 \leq x < 10$	14
$10 \leq x < 15$	3
$15 \leq x < 20$	1

Find an estimate for the mean time.

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25 students in class A did a science exam.
30 students in class B did the same science exam.

The mean mark for the 25 students in class A is 67.8.
The mean mark for all the 55 students is 72.0.

Work out the mean mark for the students in class B.

There are 30 students in a class.
Their teacher recorded the number of days of absence each student had in one year.
The stem-and-leaf diagram shows the results.

Key: 1 | 2 represents 12 days of absence

0	0 0 0 0 0 0 0 0 0 0 2 3 5 7 7 9
1	0 2 3 3 6 6 8 9
2	3 3 6 7 8
3	
4	
5	
6	8
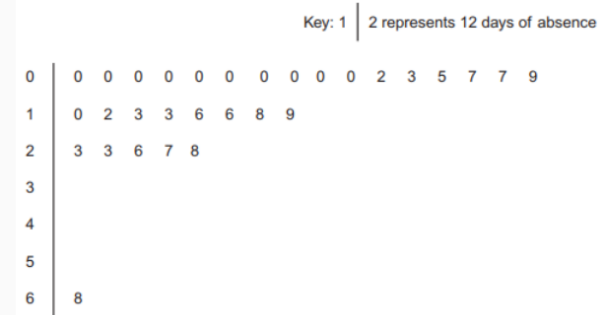
Calculate:

a) The mode

b) The range

c) The median

Five whole numbers have the following properties:

- the range is 9
- the largest number is 11
- the mode is 8
- the mean is 7.

What are the five numbers?

A rugby team played six games.

The mean score for the six games is 14.5.

The rugby team played one more game.
The mean score for all seven games is 16

Work out the number of points the team scored in the seventh game.

Chris works in a cafe.
At noon one day he records the number of customers sitting at each table in the cafe.
Here are his results.

Number of customers sitting at a table	Number of tables
0	4
1	5
2	10
3	7
4	3
5	1

Work out the mean number of customers sitting at a table.

$$Mean = \frac{63}{30} = 2.1$$

The grouped frequency table below represents the time some pupils spent doing the dishes on one evening.

Time (x minutes)	Frequency (f)
$0 \leq x < 5$	2
$5 \leq x < 10$	14
$10 \leq x < 15$	3
$15 \leq x < 20$	1

Find an estimate for the mean time.

$$Mean = \frac{165}{20} = 8.25$$

25 students in class A did a science exam.
30 students in class B did the same science exam.

The mean mark for the 25 students in class A is 67.8.
The mean mark for all the 55 students is 72.0.

Work out the mean mark for the students in class B.

$$Mean = 75.5$$

There are 30 students in a class.
Their teacher recorded the number of days of absence each student had in one year.
The stem-and-leaf diagram shows the results.

Key: 1 | 2 represents 12 days of absence

0	0 0 0 0 0 0 0 0 0 0 2 3 5 7 7 9
1	0 2 3 3 6 6 8 9
2	3 3 6 7 8
3	
4	
5	
6	8
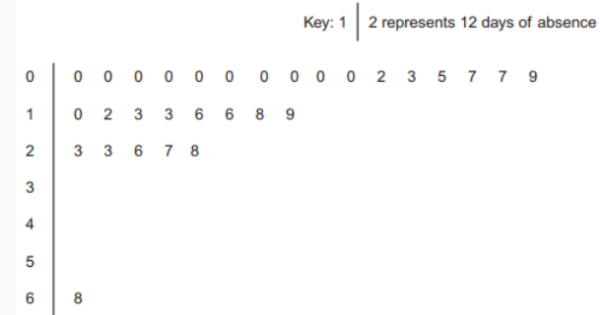
Calculate:

a) The mode   *0*

b) The range   *68*

c) The median   *8*

Five whole numbers have the following properties:

• the range is 9
• the largest number is 11
• the mode is 8
• the mean is 7.

What are the five numbers?

2, 6, 8, 8, 11

A rugby team played six games.
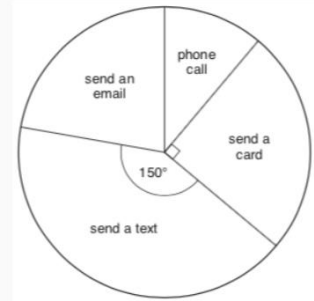
The mean score for the six games is 14.5.

The rugby team played one more game.
The mean score for all seven games is 16

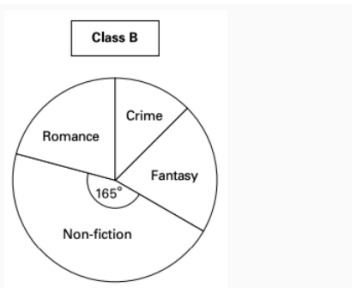Work out the number of points the team scored in the seventh game.

Score = 25 points

The pie chart represents the way 144 people wish their friends Happy Birthday.

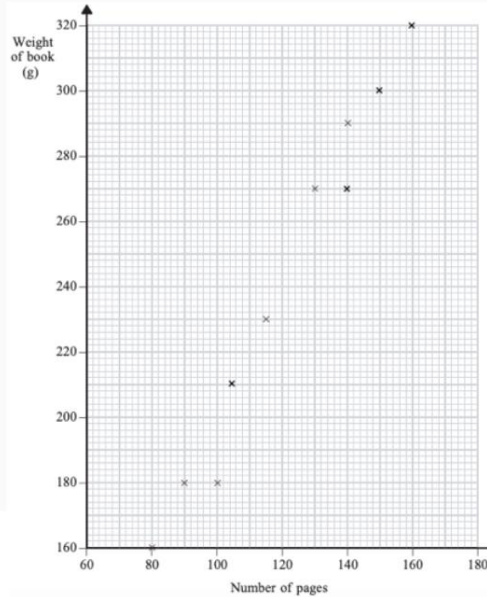
How many of the 144 people send a text?

Class B

The sector for **Non-fiction** represents 11 pupils.

How many pupils are in class B?

The table shows the number of pages and the weight, in grams, for each of 10 books.

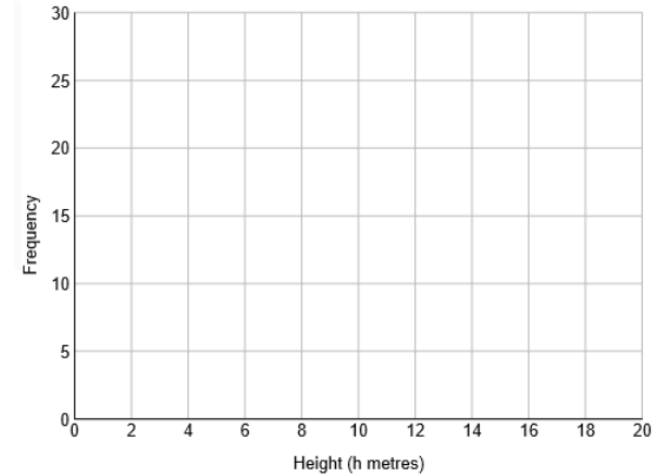| Number of pages	80	130	100	140	115	90	160	140	105	150
Weight (g)	160	270	180	290	230	180	320	270	210	300

a)   Describe the correlation

b)   Estimate the number of pages in the book for a weight of 220g

c)   Is it possible to estimate the weight of a book with 50 pages.? You must justify your answer.

The table shows information about the heights of 50 trees.

Height (h metres)	Frequency
$0 < h \leqslant 4$	8
$4 < h \leqslant 8$	21
$8 < h \leqslant 12$	12
$12 < h \leqslant 16$	7
$16 < h \leqslant 20$	2

Draw a frequency polygon for the information in the table.

DELTA Academies Trust

The pie chart represents the way 144 people wish their friends Happy Birthday.

How many of the 144 people send a text?
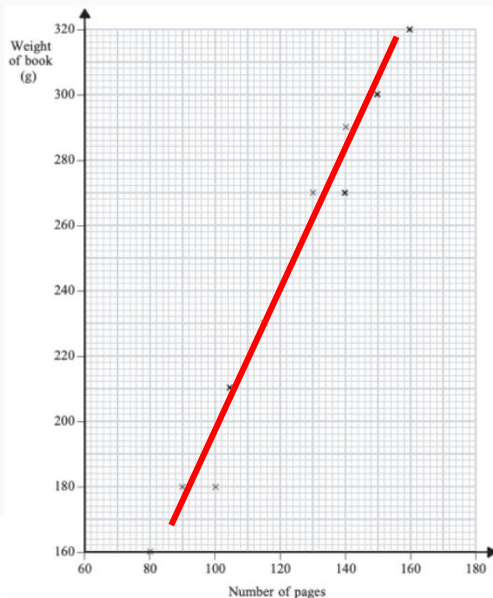
60 people
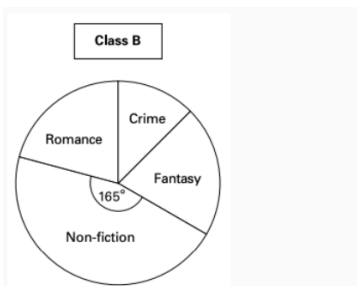
Class B

The sector for **Non-fiction** represents 11 pupils.

How many pupils are in class B?

24 people

The table shows the number of pages and the weight, in grams, for each of 10 books.

Number of pages	80	130	100	140	115	90	160	140	105	150
Weight (g)	160	270	180	290	230	180	320	270	210	300

a) Describe the correlation   *Positive*

b) Estimate the number of pages in the book for a weight of 220g   *110 pages*

c) Is it possible to estimate the weight of a book with 50 pages.? You must justify your answer.

No as it is out of the data range on the graph

The table shows information about the heights of 50 trees.

Height (h metres)	Frequency
$0 < h \leqslant 4$	8
$4 < h \leqslant 8$	21
$8 < h \leqslant 12$	12
$12 < h \leqslant 16$	7
$16 < h \leqslant 20$	2

Draw a frequency polygon for the information in the table.