Maths Lessons – Week 10 - Statistics

This pack includes your 3 maths lessons for the week. The pack includes:

- ✓ 3 maths lessons
- ✓ worksheets

Read through the document carefully as it will give you instructions on what to do. Your work this week is a refresher on addition and subtraction.

You should be all good with this but be careful to start from the right hand side and don't forget to carry!

Lesson 3 will involve reading all the questions carefully – picking the correct operation and using your reasoning skills!

Lesson 1

To find the mean you must add all of the numbers you have together and then divide that total by the number or different numbers you have added together.

Aim: To find the mean of a set of numbers.

For each set of numbers calculate the mean.

1.	9, 7, 8, 8	
2.	8, 7, 9, 8	
3.	1, 2, 7, 6	
4.	2, 3, 9, 2	
5.	4, 9, 4, 7	
6.	5, 5, 8, 6	
7.	7, 1, 10, 2	
8.	3, 1, 8, 8	
9.	9, 7, 6, 2, 3	
10.	7, 10, 6, 5, 7	
11.	13, 8, 9, 8, 2	
12.	2, 8, 12, 4	
13.	15, 12, 8, 10	
14.	8, 8, 15, 1	
15.	12, 4, 7, 3	

16.	10, 11, 9, 2	
17.	9, 9, 6, 2	
18.	9, 8, 8, 1, 7	
19.	12, 13, 2, 2, 6	
20.	3, 2, 14, 9, 6	
21.	8, 9, 16, 15	
22.	8, 16, 19, 15	
23.	4, 11, 13, 15	
24.	17, 10, 16, 6	
25.	14, 15, 18, 5	
26.	9, 5, 13, 3	
27.	20, 10, 17, 20	
28.	13, 13, 5, 4, 12	
29.	3, 10, 4, 9, 18	
30.	19, 18, 3, 5, 14	

For each set of numbers calculate the value of the missing number using the given mean.

31.	14		5	11	with a mean of 12
32.	2	20	7		with a mean of 12.25

33.	5		5	6	7	with a mean of 6
34.	4	6	1		1	with a mean of 2.8
35.	1	17		21	6	with a mean of 11.4

Lesson 2

Look carefully at this line graph and answer the questions below.

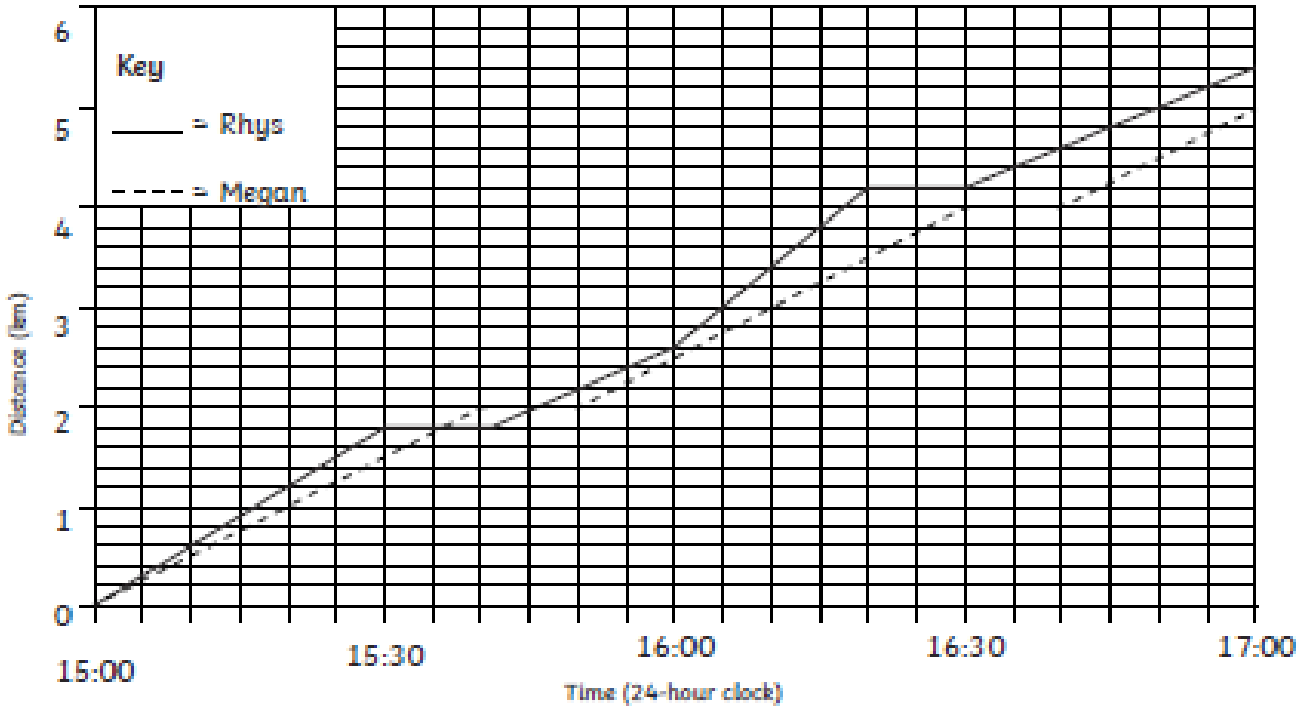
Cycle Ride Line Graphs

I can read and interpret line graphs.

Here is the table of data showing how far Rhys and Megan cycled over two hours.

Time (24-hour clock)	15:00	15:10	15:20	15:30	15:40	15:50	16:00	16:10	16:20	16:30	16:40	16:50	17:00
Rhys's Distance (km)	0	0.6	1.2	1.8	1.8	2.2	2.6	3.4	4.2	4.2	4.6	5	5.4
Megan's Distance (km)	0	0.4	1	1.4	2	2	2.4	3	3.6	4	4	4.4	5

A Line Graph to Show How Far Rhys and Megan Cycled over Two Hours



Use the line graph that Rhys and Megan made with their data to answer the questions:

1) How far had Megan cycled by 15:55?

2) How many minutes did it take Megan to cycle 3.8km?

3) At what time did Rhys stop cycling to have his second rest?

4) At what time did Megan stop cycling to have her first rest?

5) How much further had Rhys cycled than Megan at 16:10?

6) Did Rhys increase or decrease his lead from 16:10 to 16:20? By how much?

7) How many minutes did it take Megan to cycle from 3km to 4km?

8) For how many km was Megan in the lead?

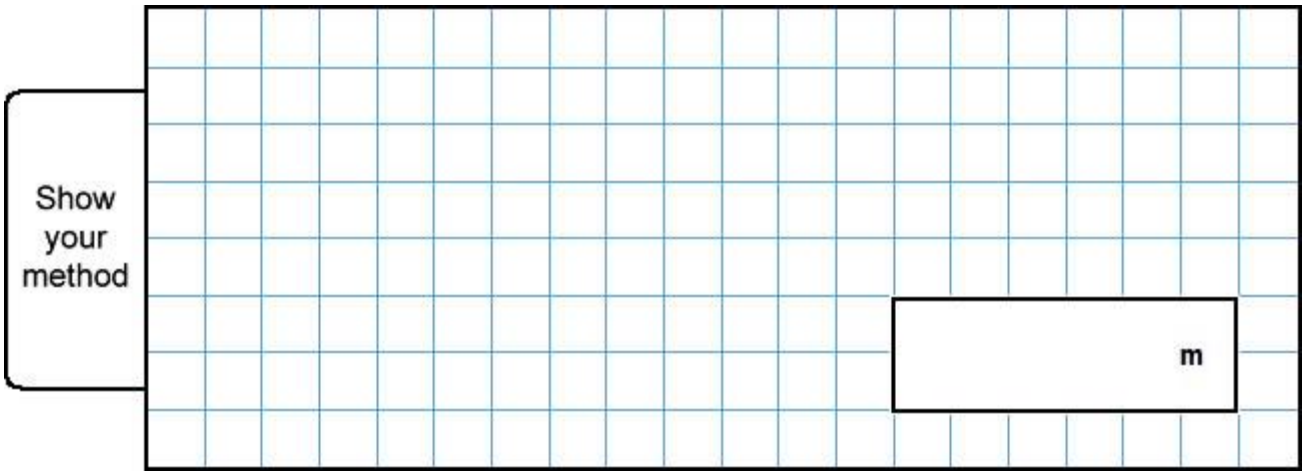
Lesson 3 – Have a go at these statistics questions from past SATS papers

Q1.

This table shows the heights of three mountains.

Mountain	Height in metres
Mount Everest	8,848
Mount Kilimanjaro	5,895
Ben Nevis	1,344

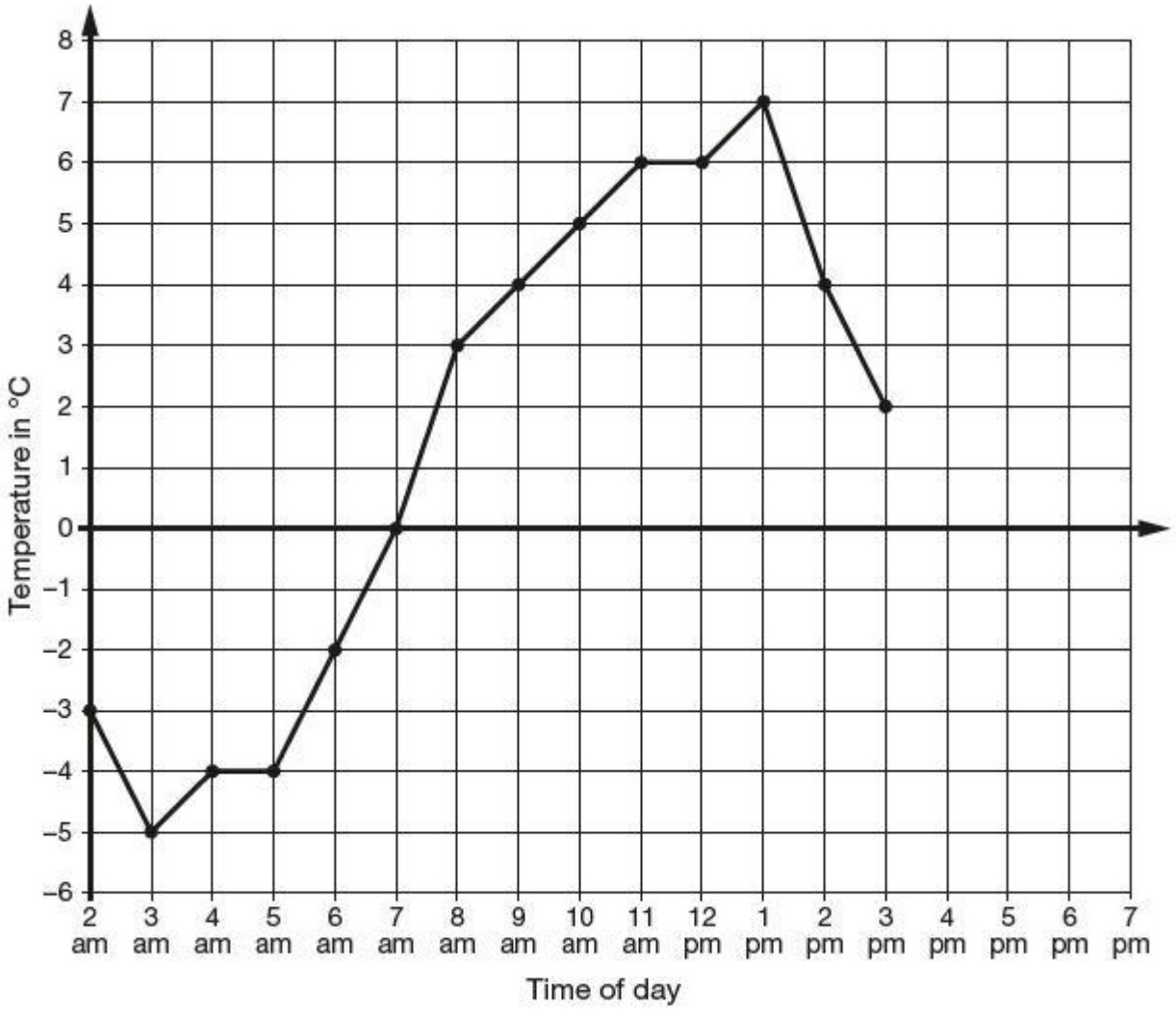
How much higher is Mount Everest than the combined height of the other two mountains?



2 marks

Q2.

This graph shows the temperature in °C from 2 am to 3 pm on a cold day.



How many degrees **warmer** was it at 3 pm than at 3 am?

°C

1 mark

At 6 pm the temperature was 4 degrees lower than at 3 pm.

What was the temperature at 6 pm?

°C

1 mark

Q3. Here is the morning timetable for Chen's class this week.

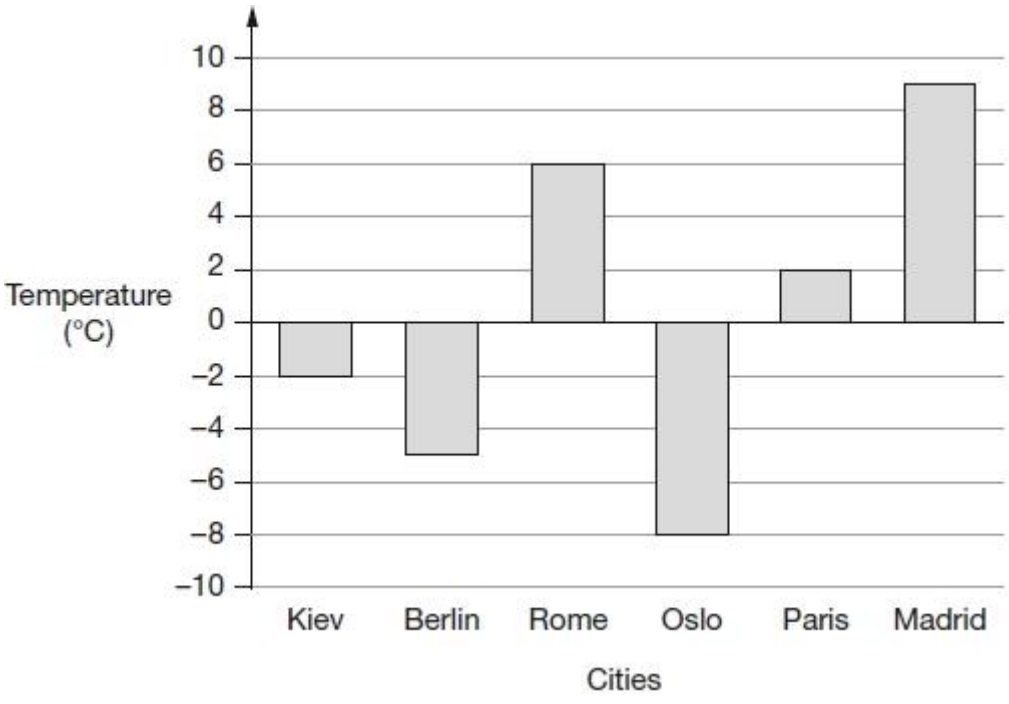
Time	Mon	Tue	Wed	Thu	Fri
9:00 am – 10:30 am	Maths	English	Maths	English	Maths
10:30 am – 11:00 am	Break	Break	Break	Break	Break
11:00 am – 12:00 pm	English	Maths	Science	Maths	English

What is the **total** number of hours for **English** on this timetable?

hours

1 mark

Q4. This graph shows the temperature in six cities on one day in January.



Which city was 4 degrees **warmer** than Kiev?

1 mark

What was the **difference** between the temperature in Oslo and the temperature in Berlin?

°C

1 mark

Q5.

Five children took part in a chess competition.

They each played six games.

This table shows how many games each child won, drew or lost.

	won	drew	lost
Alfie	1	3	2
Megan	2	2	2
Chen	3	3	0
Donna	4	0	2
Tom	0	5	1

How many children drew more games than they lost?

1 mark

Each child scores two points for a win,
one point for a draw,
no points for a loss.

Who scored the most points?

1 mark

Q6.

The table below shows five journeys a taxi driver made one day.

journey number	start time	number of passengers	distance	cost
1	9:15 am	2	8 km	£7.50
2	9:40 am	1	12 km	£9.90
3	10:30 am	3	7 km	£7.60
4	10:50 am	1	21 km	£15.50
5	12:10 pm	4	15 km	£12.00

On journey number 5, the passengers shared the cost equally.

How much did **each** passenger pay?

£

1 mark

How many **passengers** made journeys of more than 10 km?

passengers

1 mark

The 12 km journey took 40 minutes.

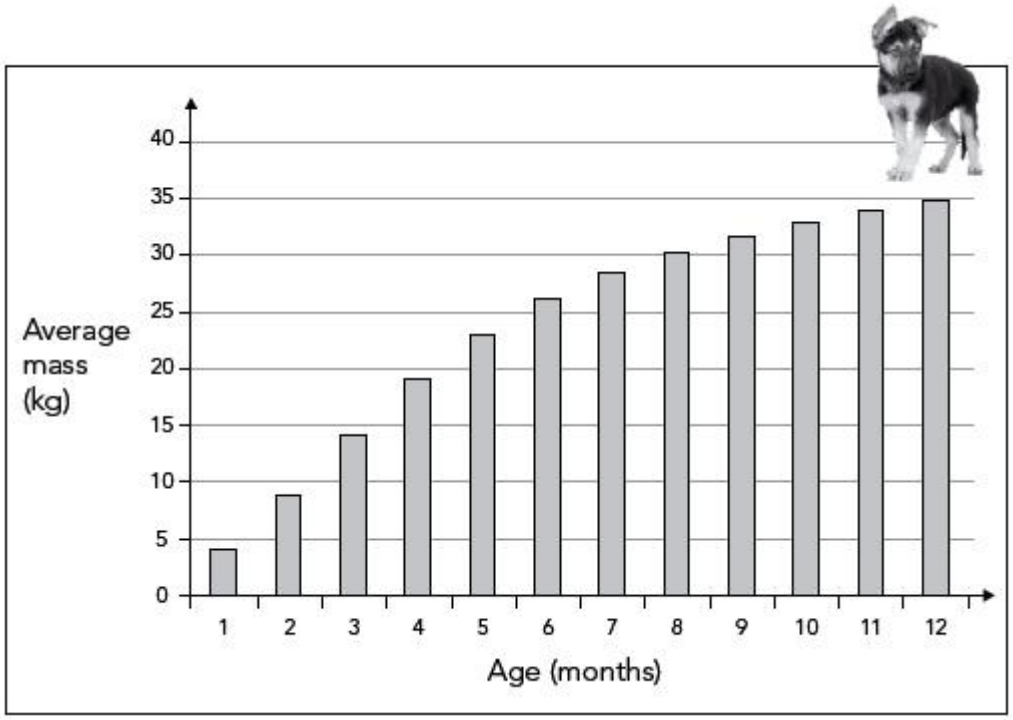
What time did the taxi finish its journey?

am

1 mark

Q7.

Here are two pieces of information about dogs called German Shepherds.



The average mass of an **adult** German Shepherd is about 35 kg.

Use **both** pieces of information to summarise how German Shepherd dogs grow.

_____

_____

_____

_____

_____

2 marks

Q8. Here are four labels.

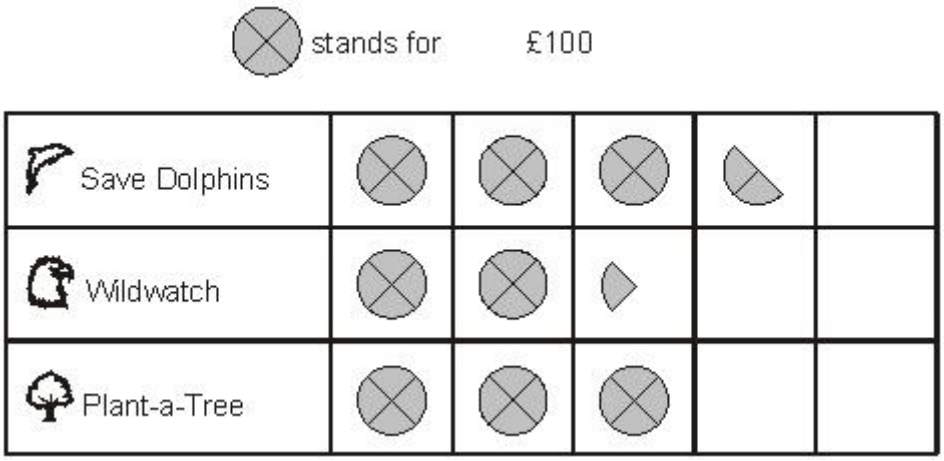
even	multiples of 9	not even	not multiples of 9

Write each label in the correct position on the sorting diagram below.

	72 54	56 84
	63 45	49 75

1 mark

Q9. Park School collects money for three charities. This pictogram shows how much they have collected.



How much more have they collected for Save Dolphins than Plant-a-Tree?

£

The target for Wildwatch is £500

How much **more** money do they need to collect for Wildwatch?

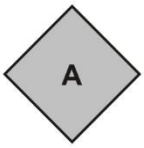
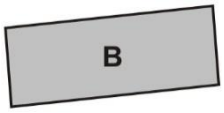
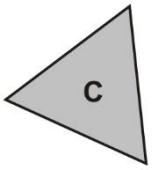
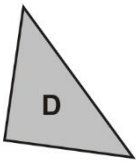
£

How much money have they collected altogether, rounded **to the nearest hundred pounds**?

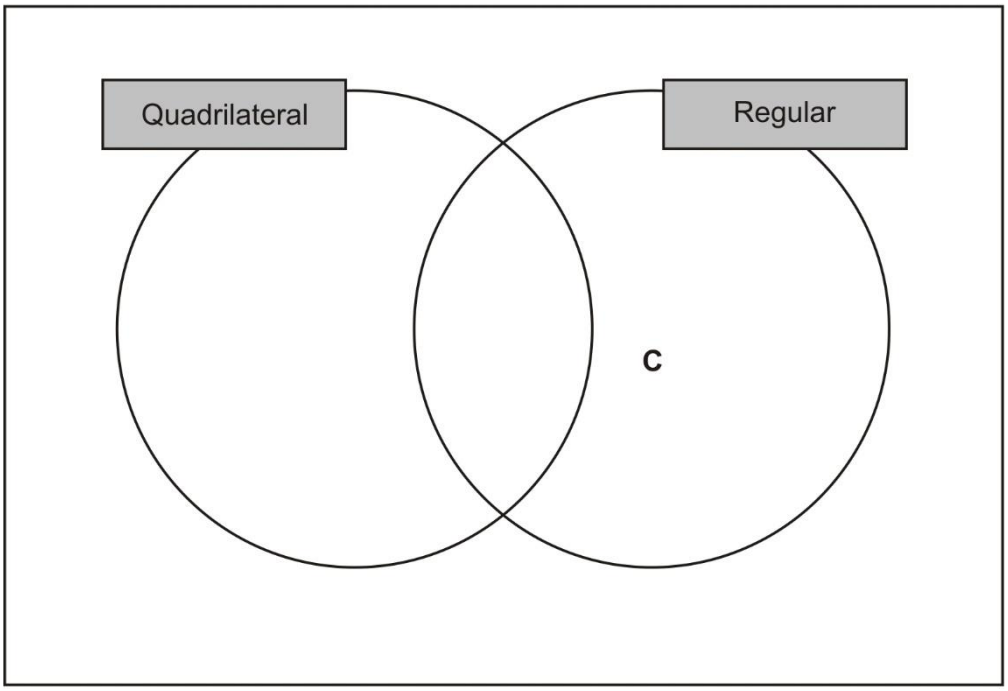
£

Q10.

Here are four shapes in a Carroll diagram.

	Regular	Not regular
Quadrilateral		
Not a quadrilateral		

Use this information to write the letters **A**, **B** and **D** in the Venn diagram below.



2 marks