



Name: _____ **Date:** _____ **Score:** _____ / 36

1 Write down the type of correlation you would expect to see in a scatter graph of each of the following.

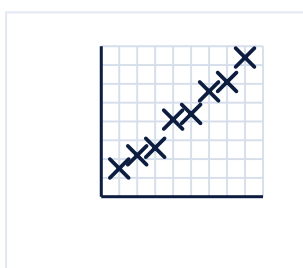
- The daily temperature and the number of ice creams sold at a kiosk.
- The age of a car and its value.

(2 marks)

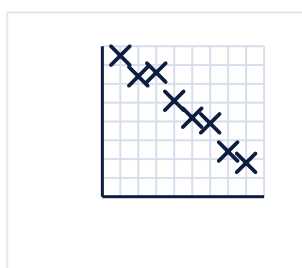
Answer _____

2 Here are three scatter graphs, A, B and C.

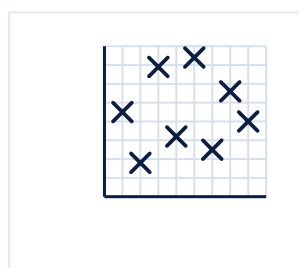
For each graph, write down the type of correlation it shows.



A



B



C

(3 marks)

Answer _____

3

There are 200 pupils in Year 7 at Hillside School.

Jamal asks 50 of the Year 7 pupils how they get to school. 30 of them say they walk.

- Estimate how many of the 200 Year 7 pupils walk to school.
- Jamal asked the 50 pupils as they arrived through the main gate, which is next to the bus stop. Give one reason why his estimate might not be good for the whole of Year 7.

(3 marks)

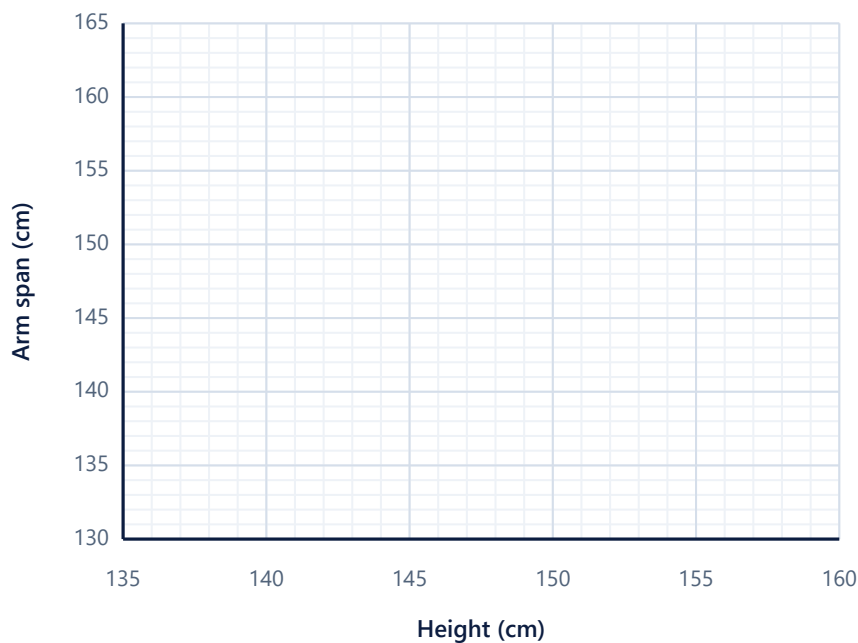
Answer _____

4

A PE teacher measures the height and the arm span of 8 Year 7 pupils.

Height (cm)	138	142	145	147	150	152	155	158
Arm span (cm)	135	143	144	149	148	153	154	160

- On the grid, plot the points to complete the scatter graph.
- Describe the relationship between height and arm span.



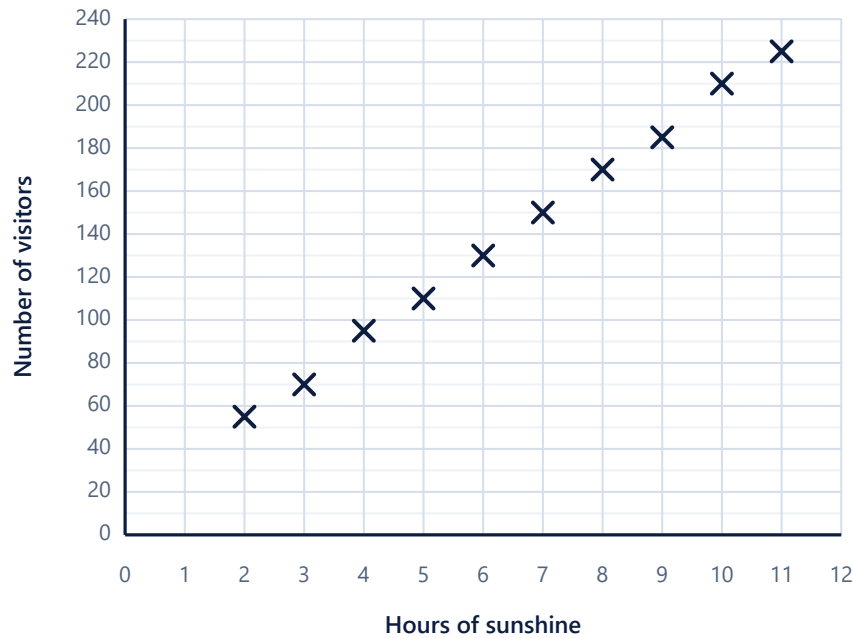
(3 marks)

Answer _____

5

The scatter graph shows the number of hours of sunshine and the number of visitors to a country park on each of 10 days.

- Describe the correlation shown by the scatter graph.
- On another day there were 7.5 hours of sunshine. By drawing a line of best fit, estimate the number of visitors to the park on this day.

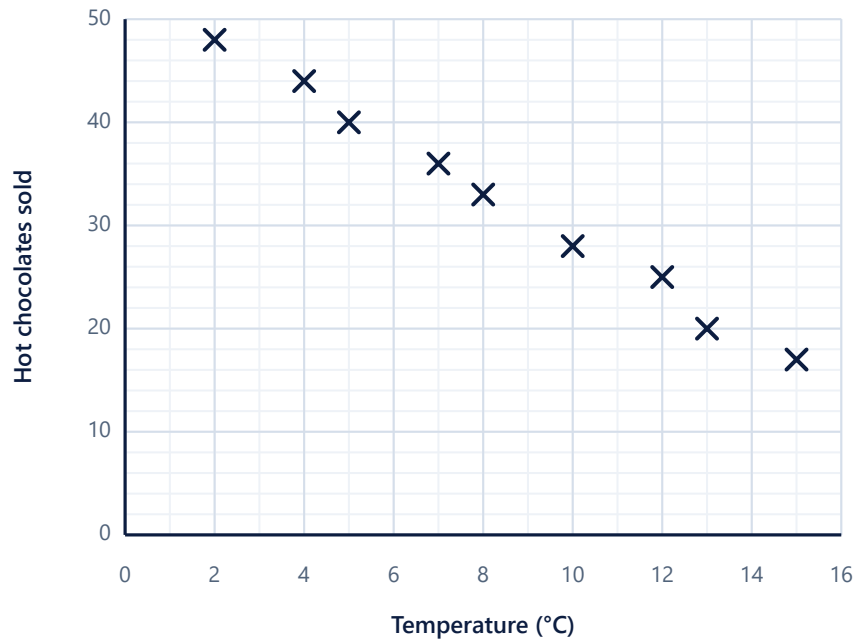


(3 marks)

Answer _____

6 The scatter graph shows the outside temperature and the number of hot chocolates sold by a school canteen on 9 days.

- Describe the correlation.
- Draw a line of best fit on the scatter graph.
- Use your line to estimate the number of hot chocolates sold on a day when the temperature is 9°C .
- Use your line to estimate the temperature on a day when 42 hot chocolates are sold.



(4 marks)

Answer _____

7 40 students each chose one sport. 15 chose football and 6 chose tennis. Ellie is going to draw a pie chart of the results.

- Work out the angle Ellie should use for football.
- Work out the angle Ellie should use for tennis.

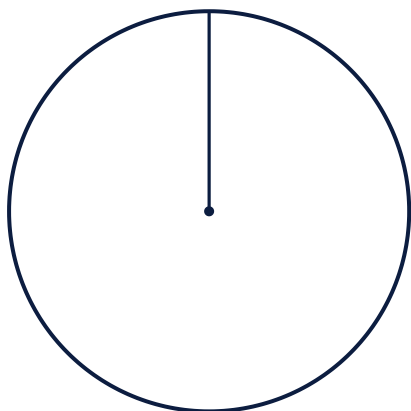
(3 marks)

Answer _____

- 8 30 pupils were asked to name their favourite flavour of crisps.

Flavour	Frequency
Salt and vinegar	9
Cheese and onion	7
Ready salted	10
Prawn cocktail	4

Draw an accurate pie chart for this information.



(4 marks)

Answer _____

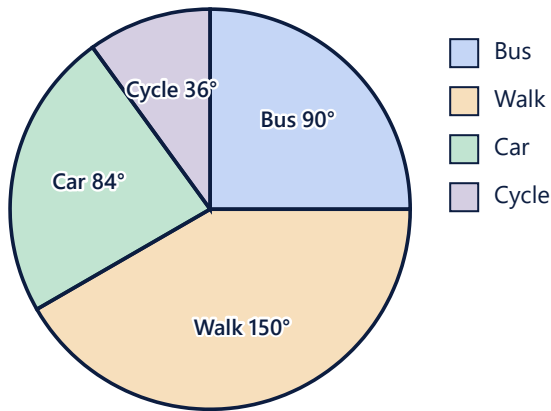
- 9 A pie chart shows information about the members of a leisure centre.
The sector for swimming has an angle of 72° and represents 18 members.
Work out the total number of members of the leisure centre.

(3 marks)

Answer _____

10 The pie chart shows how 60 pupils travel to school.

- What fraction of the pupils walk? Give your answer in its simplest form.
- How many pupils travel by car?
- How many more pupils walk than travel by bus?



(4 marks)

Answer _____

11 Two schools each drew a pie chart to show their students' favourite lunch.

School	Number of students	Angle for pizza
School A	80	45°
School B	240	30°

Sam says, "More students chose pizza at School A than at School B, because the angle for pizza is bigger at School A."

Is Sam right? You must show your working.

(4 marks)

Answer _____

End of questions | Total 36 marks