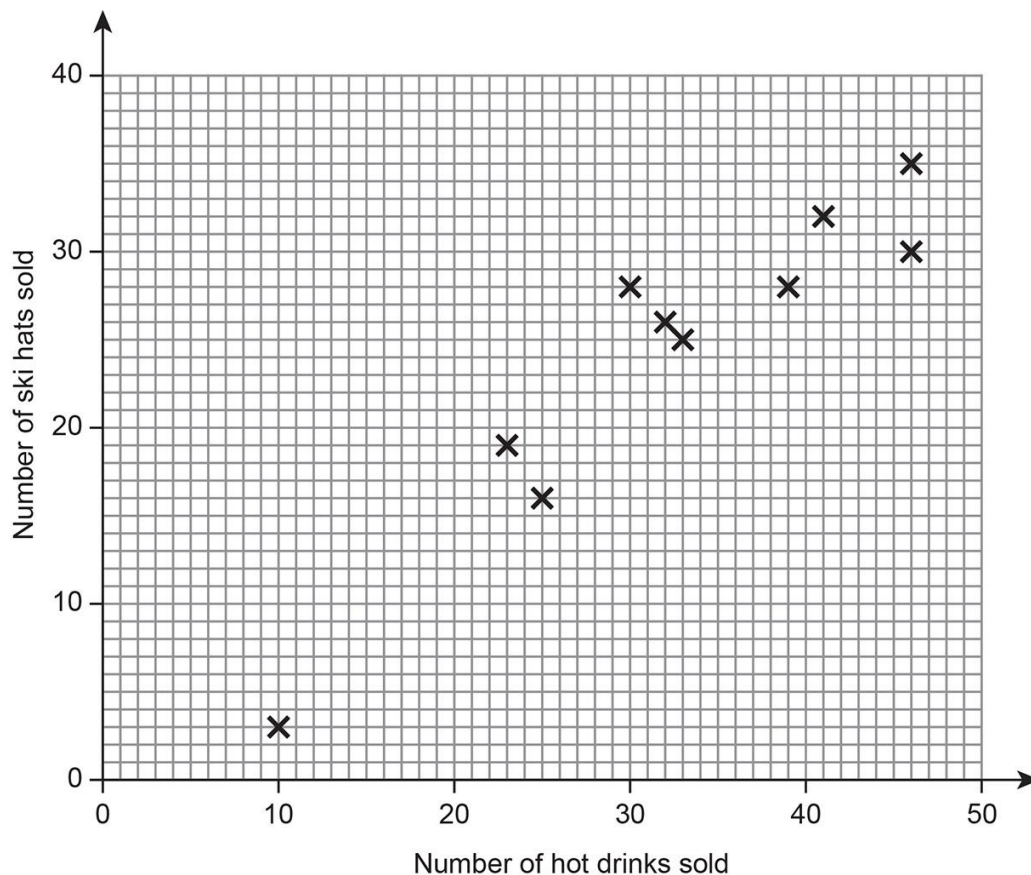


Exam questions

The Shorts Hut is a shop that sells sports clothing and has a customer café.

The manager plots some sales data in a scatter graph.

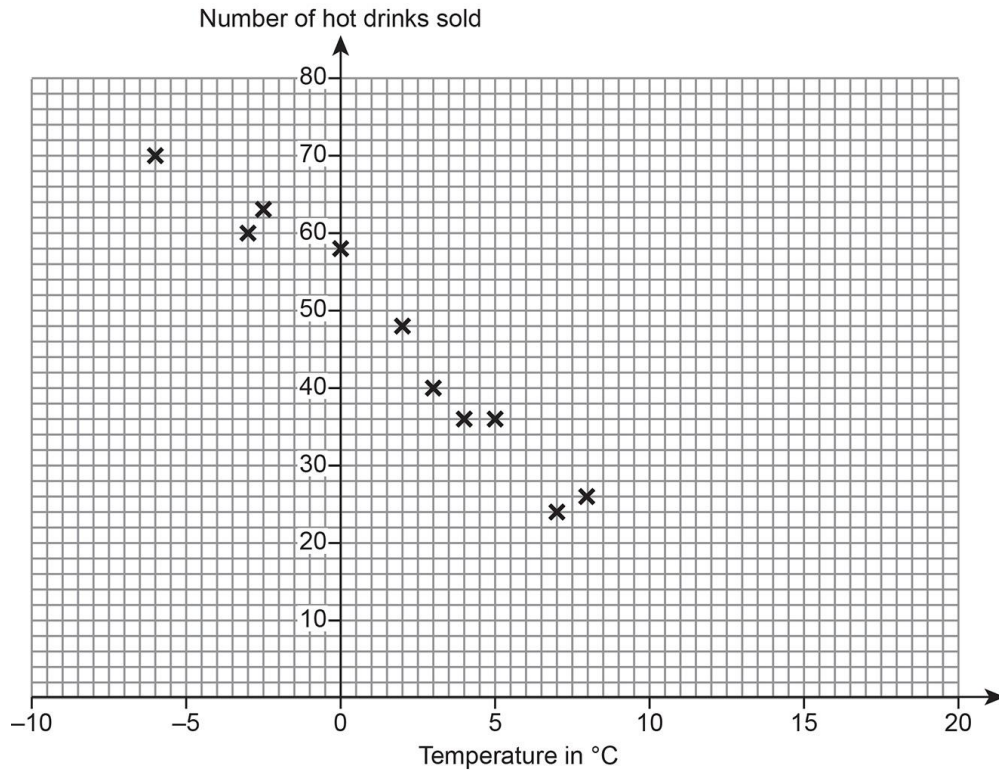
The graph shows the number of hot drinks sold and the number of ski hats sold each day for 10 days.



The manager says that this graph shows that an increase in the sale of hot drinks causes an increase in the sale of ski hats because the correlation is positive.

Explain why the manager is incorrect.

The manager plots another scatter graph showing the temperature, in $^{\circ}\text{C}$ at 9 a.m. and the number of hot drinks sold during the first hour on each of 10 days.



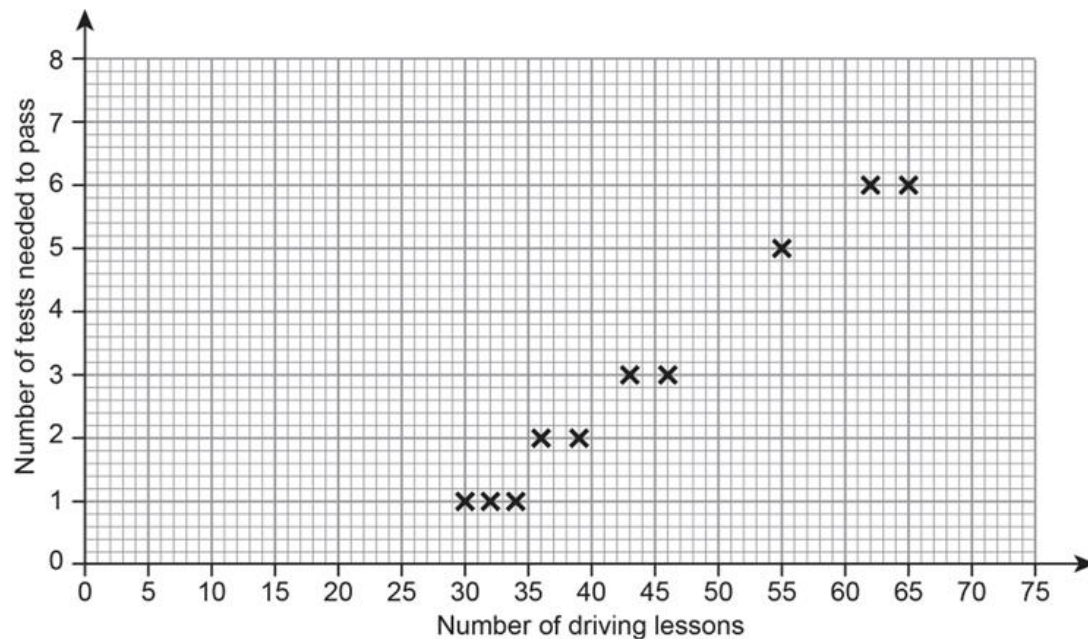
Draw a line of best fit on the scatter graph.

Estimate the number of hot drinks the café will sell when the temperature is 6°C .

Comment on how suitable the graph is for estimating the number of hot drinks sold when the temperature is more than 17°C .

You must give a reason for your answer.

The scatter graph shows the number of driving lessons and the number of tests needed to pass by 10 people.



What proportion of the 10 people passed on their first test?

Write down the types of correlation shown in the graph.

Use a line of best fit to estimate the number of tests needed to pass by a person who has 50 lessons.

Selma says,

"I can use the trend to predict the number of driving tests needed to pass for any number of driving lessons."

Comment on this statement.