4.1) Correlation

Worked example

Plot a scatter diagram to represent this data:
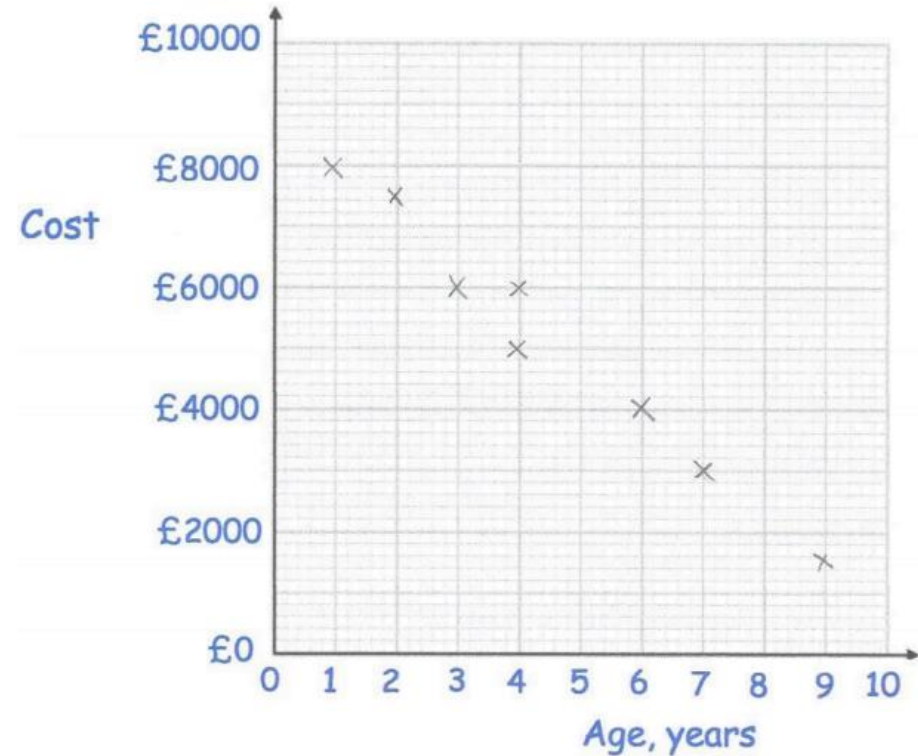
Maths score (x)	9	13	6	18	11	4	15	10
Physics score (y)	10	13	5	20	8	5	12	14
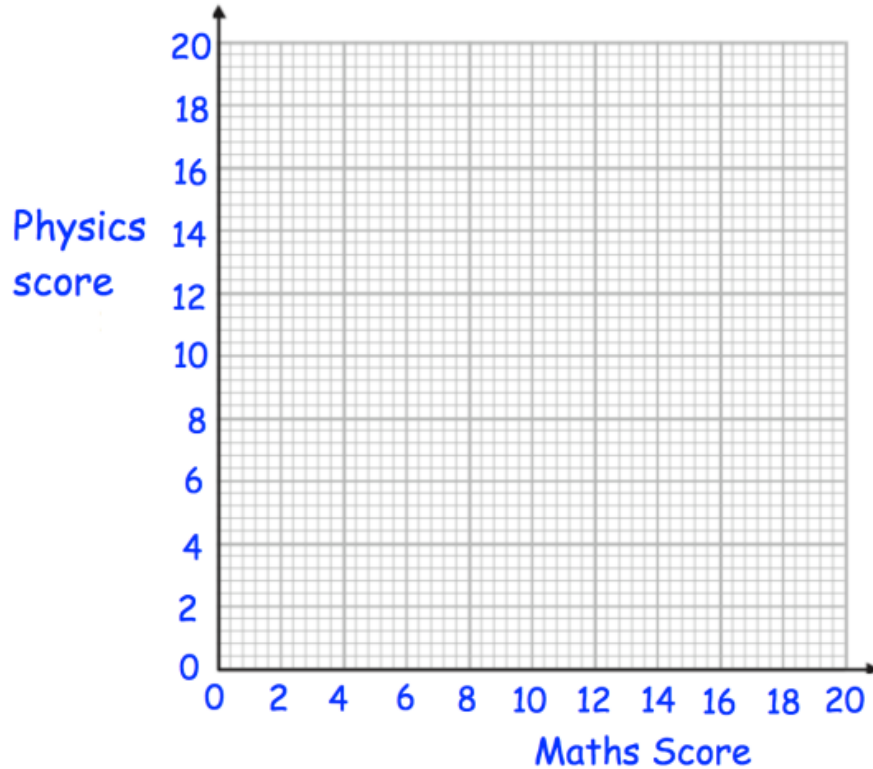
Your turn

Plot a scatter diagram to represent this data:

Age, years (x)	4	7	2	4	1	9	3	6
Cost, £ (y)	6000	3000	7500	5000	8000	1500	6000	4000

Worked example

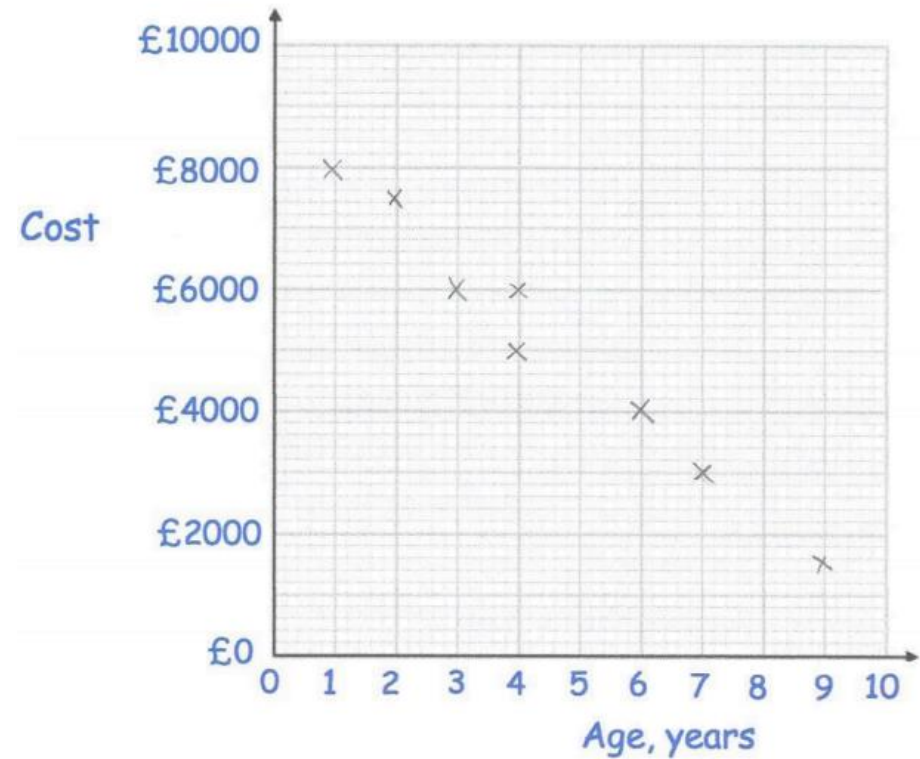Use the scatter diagram to:
a) Describe the correlation
b) Interpret the correlation
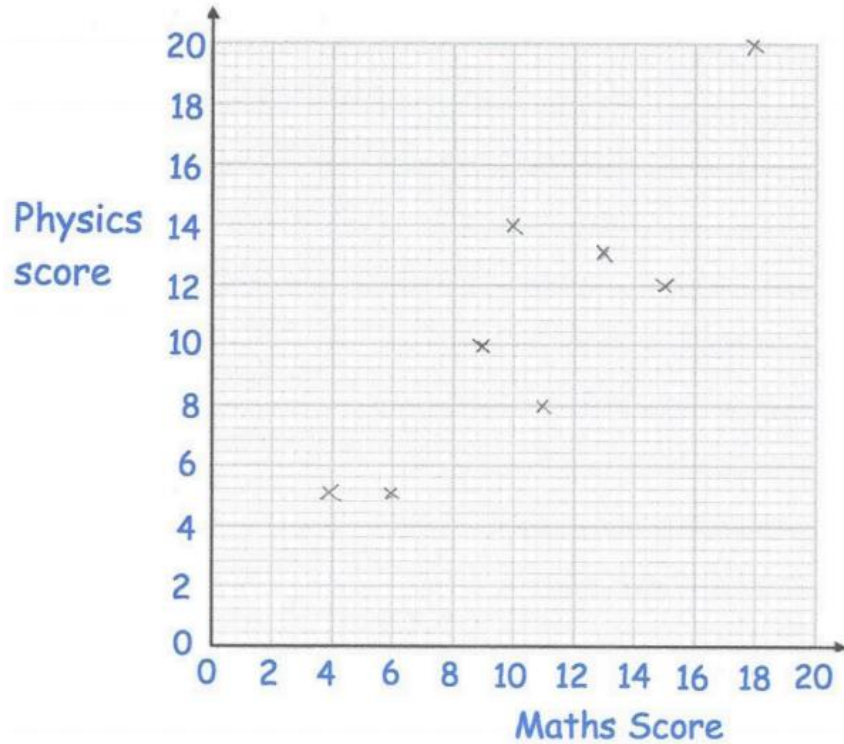
Your turn

Use the scatter diagram to:
a) Describe the correlation
b) Interpret the correlation

a) Strong negative correlation
b) As the age (of an object) increases, its cost decreases

Worked example	Your turn
A student was interested to see if there as a relationship between the value of a house and the speed of its internet connection. A scatter diagram was drawn with a weak negative correlation. He says his data supports the conclusion that a slower internet connection reduces the value of a house. Give one reason why his conclusion may not be valid.	A student was interested to see if there was a relationship between what people earn and the age which they left education or training. A scatter diagram was drawn with a weak negative correlation. She says her data supports the conclusion that more education causes people to earn a lower hourly rate of pay. Give one reason why her conclusion might not be valid. • Respondents who left education later would have significantly less work experience than those who left education earlier. This could be the cause of the reduced income shown in her results. • Small opportunistic sample used