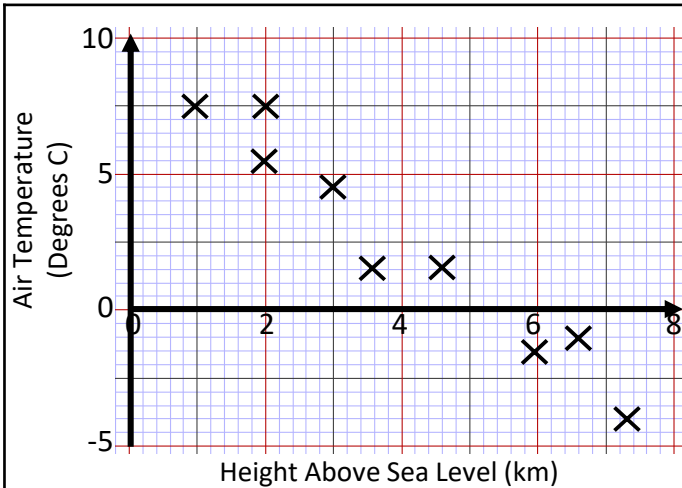




Timester Challenge

Scatter Graphs

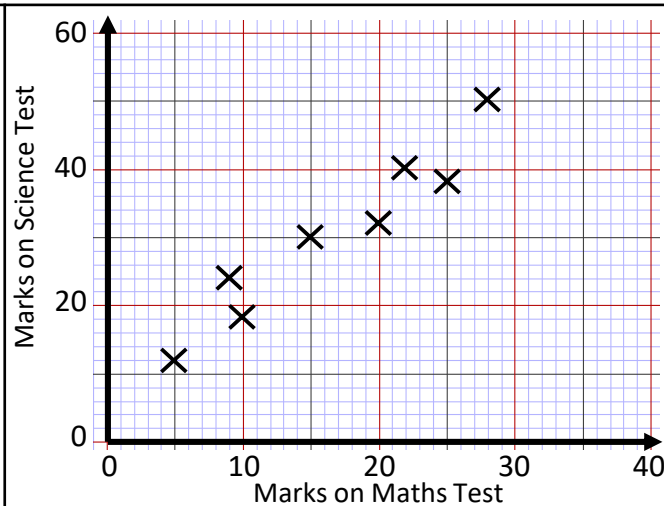


The table shows the latest 4 measurements taken.

Height (km)	2.8	5.2	7
Temperature (°C)	3	0	-1.5

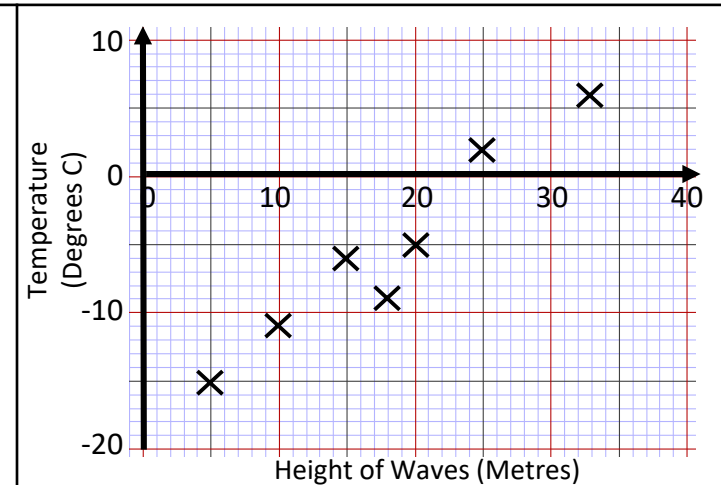
- On the scatter graph, plot the information.
- Describe the correlation between the air temperature and the height above sea level.
- Find an estimate of the height above sea level when the air temperature is -2.5°C .

Bronze ★



- Using the scatter diagram, write down the science mark of the student who scored 5 marks on their maths test.
- Describe the relationship between the marks in the maths test and the marks in a science test.
- Farooq was absent for the maths test but his science score was 36. Estimate Farooq's mark in the maths test.

Silver ★



- Describe the correlation between the height of the waves in the Antarctic ocean and the temperature of the water.
- Thomas says, "On average the temperature of the Antarctic ocean increases by 7 degrees for every 10 metre increase in the height of the waves" Is Thomas right? **Show how you get your answer.**
- Estimate the temperature of the water when the waves are 27m high.

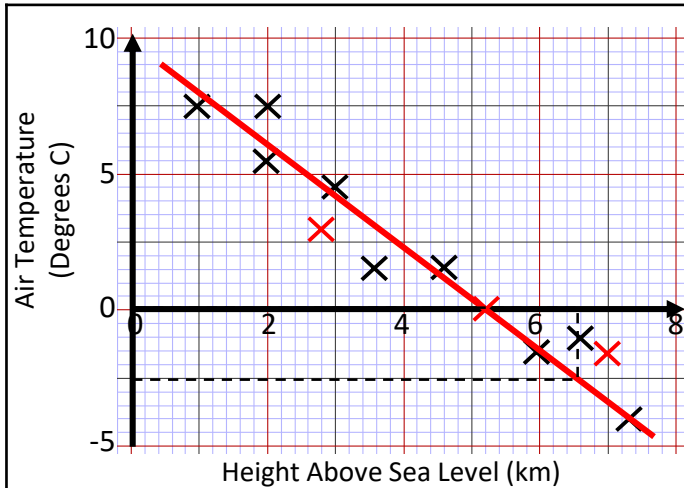
Gold ★



Timester Challenge

Scatter Graphs

Answers

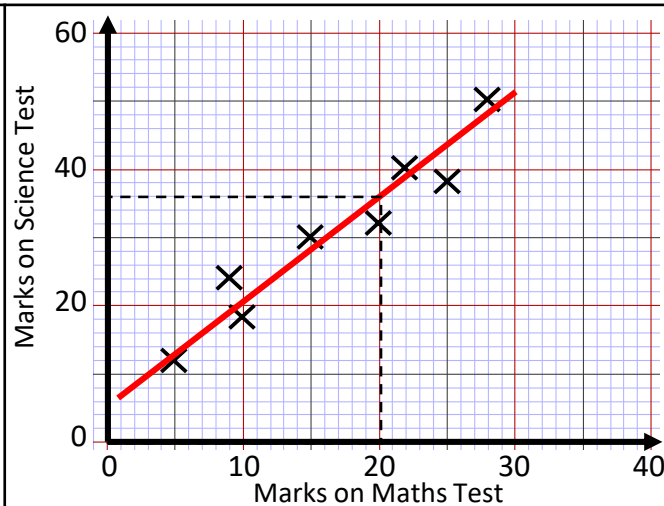


The table shows the latest 4 measurements taken.

Height (km)	2.8	5.2	7
Temperature (°C)	3	0	-1.5

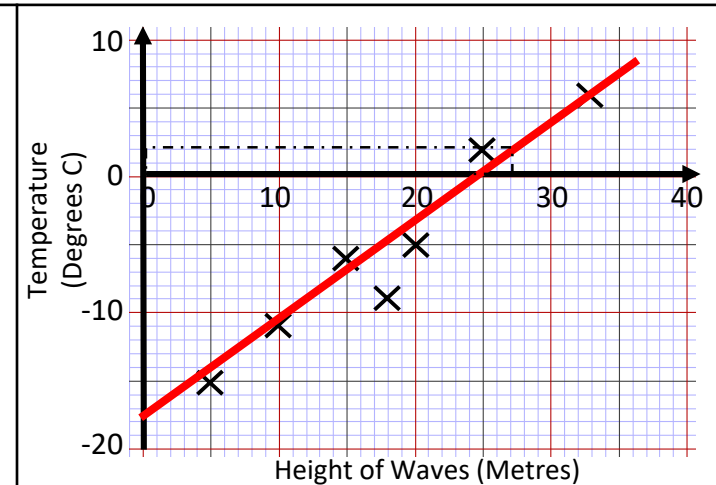
- On the scatter graph, plot the information.
- Describe the correlation between the air temperature and the height above sea level.
Negative
- Find an estimate of the height above sea level when the air temperature is -2.5°C .
6.6km

Bronze ★



- Using the scatter diagram, write down the science mark of the student who scored 5 marks on their maths test.
6 Marks
- Describe the relationship between the marks in the maths test and the marks in a science test.
As a students maths scores increase so do their science scores. Positive Correlation.
- Farooq was absent for the maths test but his science score was 36. Estimate Farooq's mark in the maths test.
20 Marks

Silver ★



- Describe the correlation between the height of the waves in the Antarctic ocean and the temperature of the water. **Positive. As the waves increase in size the temperature also increases.**
- Thomas says, "On average the temperature of the Antarctic ocean increases by 7 degrees for every 10 metre increase in the height of the waves" Is Thomas right?
LOBF Gradient = $\frac{14}{20} = \frac{7}{10} = 0.7$ Yes he is correct.
- Estimate the temperature of the water when the waves are 27m high. **2°C**

Gold ★