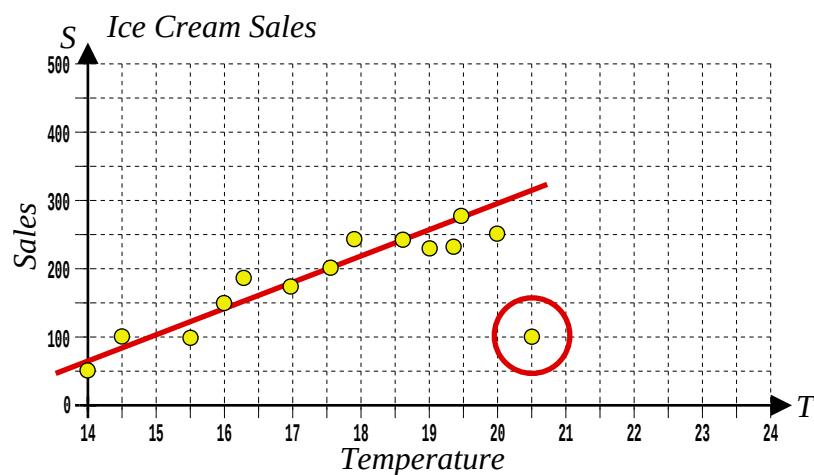


1.7 Answers

GCSE Mathematics : Year 10 Statistics I : Visualising Data

1.7.1 Solution to 1.5 Example #1

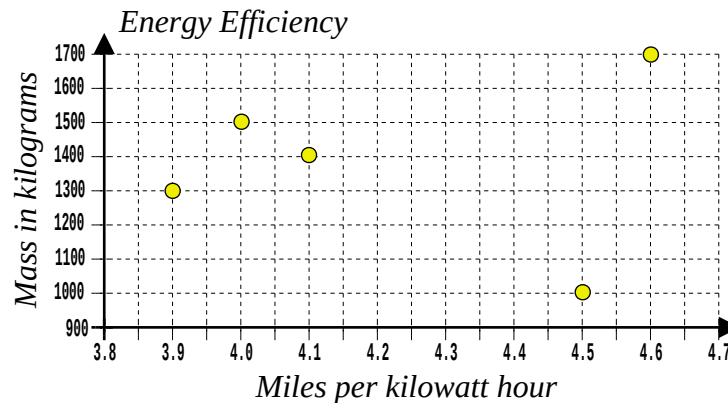
- (i) On the graph below a line of best fit has been added by eye.



- (ii) Positive correlation. [1 mark]
- (iii) On the graph above, the outlier is circled. [1 mark]
- (iv) The data range for which information about ice cream sales is known is between 14 °C and 20.5 °C
As 24 °C is outside this “known range” no prediction should be made. [1 mark]

1.7.2 Solution to 1.6 Example #2

(i)



[3 marks]

You might reasonably expect that the heavier the car, the less miles you get for a kWh of electricity.

In other words, negative correlation is to be expected.

The *Tesla Model 3* manages to do much better than expected.

The *Smart EQ fortwo* does not do as well as it's light weight suggests it should.

- (ii) The *Tesla Model 3*, in spite of being the heaviest car, does the most miles per kilowatt hour.
The *Fiat 500e* almost does as many miles per kWh as the *Tesla* but does so by having much less weight.

[1 mark]

- (iii) The *Smart EQ fortwo* is quite heavy and does not manage as many miles per kWh as it's light(ish) weight suggests.

[1 mark]

- (iv) There are not enough data points.
The sample size is too small.
George and Hamish need to gather more data.

[1 mark]