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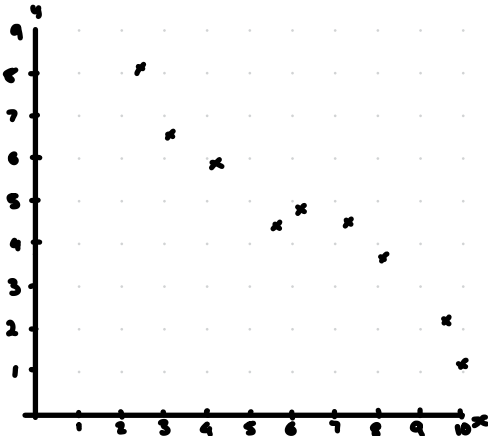
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4.1 Correlation

- 1 a. positive correlation
- b. no correlation
- c. negative correlation

2 a.

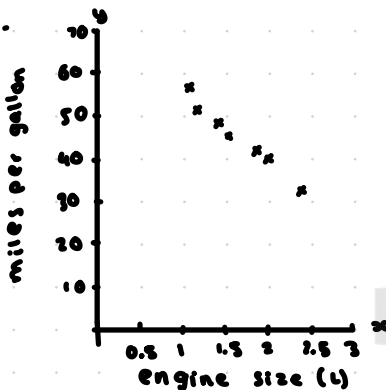


b. negative correlation

3 a. positive correlation

- b. as the daily mean increases the total daily sunshine tends to increase.
- c. July

4 a.



b. It is a negative correlation. As engine size increases, the car tends to do fewer miles per gallon.

c. larger engines will need more fuel to run, so it's a causal relationship

5 a. positive correlation

- b. It is unlikely to be causal as you don't know before the game how many goals will be scored. There could be a third variable that influences crowd size and number of goals scored, such as recent team performances.

6 a. $Q_3 - Q_1 = 3300 - 2800 = 500$

$1.5 \times 500 = 750$

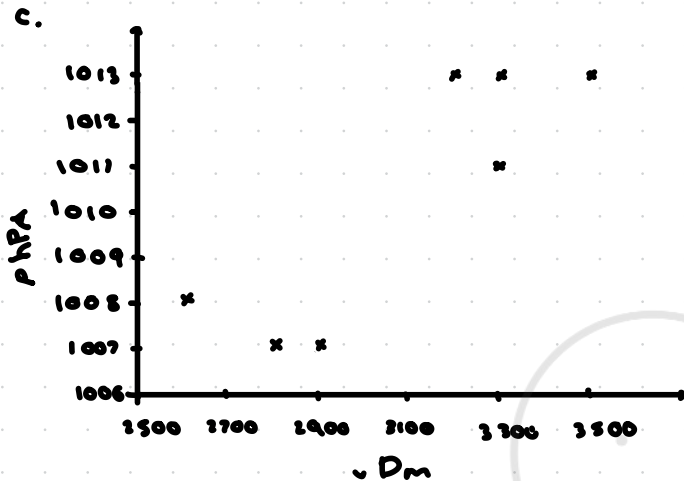
LB : $Q_1 - 1.5(500) = 2800 - 750 = 2050$

UB : $Q_3 + 1.5(500) = 3300 + 750 = 4050$

$v = 1100$ which is lower than LB so it is an outlier.

b i. could be due to a gloomy day

bii. It is a long way away from rest of the data so leaving it out will lead to more accurate result.



d. positive correlation

e. It is causal as high pressure can cause less rain / cloud so could improve visibility.

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