



S2 skills ho ho homework – December – Averages

1. To calculate an average you need to add up all your results to find a total.
2. Divide the total by the number of results that you have.

1. Calculate the average for the following sets of data
 - a. 1.7, 1.3, 1.9, 2.2, 2.7
 - b. 101, 107, 106, 105.5, 111
 - c. 0.34, 0.34, 0.34, 0.36, 0.35, 0.45
 - d. 1150, 1175, 1164, 1189, 1126, 1140
 - e. 3.1, 3.21, 3.2, 3.19, 3.14, 3.22
2. Santa is trying to improve his delivery times to some of the children of Bathgate. His head elf records the time it takes to deliver presents to eight children. The results are shown below.

Childs Name	Time to deliver presents (s)
Hazel	54.3
Christine	37.2
Gary	45.6
Sarah	41.9
Robert	42.4
Mark	47.6
Graeme	41.5
Carol	52.5

- a. Calculate the average delivery time based on the information above.
- b. Which child's delivery time was closest to the average delivery time?
- c. Which children had a delivery time that was **below average**?
- d. Brian is a last minute addition to Santa's list. However, due to a very small chimney, it takes **2.5 minutes** to deliver his presents. Calculate Santa's new average delivery time.

3. The carbon dioxide emissions for 3 different models of car are recorded over the course of a week. The results are shown below.

Day of the week	Carbon dioxide emissions based on car model (grams)		
	Fiesta	Clio	BMW
Monday	5.4	4.2	7.3
Tuesday	5.3	4.8	6.9
Wednesday	5.1	4.7	6.6
Thursday	5.3	4.5	6.9
Friday	5.2	11.1	7.1
Saturday	5.2	4.3	7.0
Sunday	5.5	4.4	6.5

- Which car had the lowest average Carbon dioxide emissions over the course of the week?
 - Suggest a reason why the Clio had a greater than normal emission on Friday.
4. Santa tries to share all the carrots his Reindeer receive as equally as he can. However, some Reindeer have been complaining that they are not getting their fair share. Santa records how many carrots he gives to each Reindeer.

Name of Reindeer	Carrots
Dasher	1 650 000
Dancer	1 476 000
Prancer	1 879 000
Vixen	1 357 000
Comet	1 462 000
Cupid	1 297 000
Donner	1 823 000
Blitzen	1 734 000
Rudolph	1 928 000
Olive the other Reindeer	1 467 000

- Which Reindeer received the most carrots?
- What is the total number of carrots given to the Reindeer?
- Calculate the average number of carrots given to each Reindeer?
- Both **Vixen** and **Prancer** complained about the number of carrots they received. Which Reindeer was right to complain and why?