**S2 skills ho ho homework – December – Averages**

If I get stuck I can ask my teacher for help!

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.
3. Calculate the average for the following sets of data
4. 1.7, 1.3, 1.9, 2.2, 2.7
5. 101, 107, 106, 105.5, 111
6. 0.34, 0.34, 0.34, 0.36, 0.35, 0.45
7. 1150, 1175, 1164, 1189, 1126, 1140
8. 3.1, 3.21, 3.2, 3.19, 3.14, 3.22
9. 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 |

1. Calculate the average delivery time based on the information above.
2. Which child’s delivery time was closest to the average delivery time?
3. Which children had a delivery time that was **below average**?
4. 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.
5. The carbon dioxide emissions for 3 different models of car are recorded over the course of a week. The results are shown below.

|  |  |
| --- | --- |
|  | Carbon dioxide emissions based on car model (grams) |
| Day of the week | 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 |

1. Which car had the lowest average Carbon dioxide emissions over the course of the week?
2. Suggest a reason why the Clio had a greater than normal emission on Friday.
3. 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 |

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