

Averages from a table

Tao works in a garden shop. The table shows information on the sizes of the garden gnomes the last 20 customers bought.



Size	Size of Garden Gnomes (h cm)	Frequency
S	$0 < h \leq 5$	4
M	$5 < h \leq 10$	8
L	$10 < h \leq 15$	6
XL	$15 < h \leq 20$	2

a) Estimate the mean.

b) Tao is placing an order. He is going to order $\frac{1}{4}$ of the gnomes in each size. Is this correct?

a) Calculate the median shoe size.

b) Calculate the mean shoe size.

Jacob asks his class what their shoe sizes are and notes them down in a table.

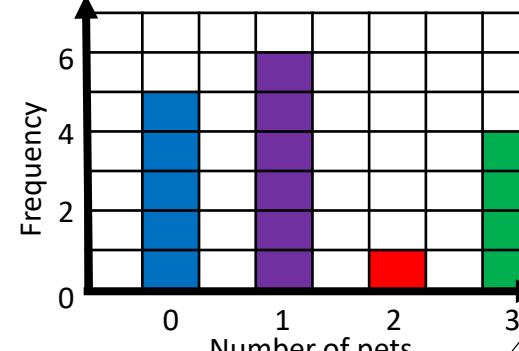
Shoe Size	Frequency
4	4
5	11
6	12
7	3

Compare the average goals scored of the two football teams. Which team is statistically the better football team?

Goals Scored	Hearts Headways Frequency	Hibee Hurdlers Frequency
0	12	6
1	15	13
2	8	14
3	4	6



Find the median number of pets.



Averages

Averages from a table

PE Lesson 100m Sprint Times (t seconds)	Frequency
$0 < t \leq 9$	5
$9 < t \leq 15$	9
$15 < t \leq 25$	8
$25 < t \leq 35$	3

a) Estimate the median time.

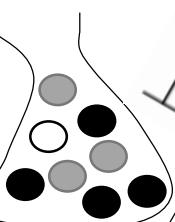
b) Estimate the mean time.

Averages

Probability

There are black, grey and white balls in a bag. On the probability scale mark with an arrow the probability of selecting a:

- a) Black ball
- b) Grey ball
- c) Purple ball



A standard six sided fair dice is rolled. What is the chance of rolling the following numbers? Connect your answers with a line.

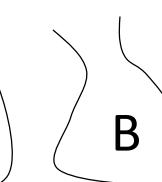
- Certain
- Unlikely
- Impossible
- Evens
- Likely

An odd number

A multiple of 3

A number less than 6

A number 7



Bag A contains 15 Maltesers and 30 Haribo.

Bag B contains 9 Maltesers and 12 Haribo.

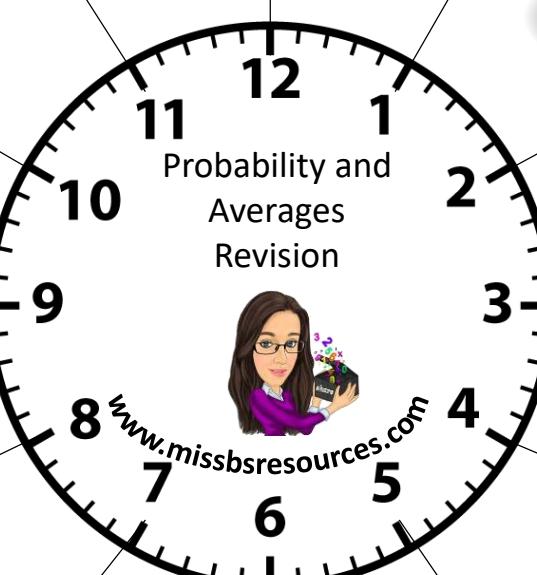
A sweet is chosen at random from each bag.

Deontai says, "I'm more likely to choose a Malteser sweet from bag A than bag B because there are more Maltesers in bag A than bag B. Is she correct? Show all of your working out."

Poppy, Aleena and Erin decide to test the theory that toast always lands butter side up, when only one side is buttered. They test this with several pieces of toast and count how many times it lands butter side up. The table shows the results.

	No. of pieces of toast dropped	No. landing 'butter side up'
Poppy	10	6
Aleena	50	39
Erin	100	85

Erin's results give the best estimate of the probability of a piece of toast landing 'butter side up'. Explain why.



Lucy asks her friends how many pets they have. Her results are shown in the bar chart.

Teesside flyers times:
3 hours 12 mins,
2 hours 52 mins,
3 hours 36 mins

Glasgow Getaways:
3 hours 9 mins, 3 hours 15 mins,
3 hours 21 mins

Two running clubs are competing against each other in the great north run. The team with the fastest average wins. Compare the averages to decide the winning team.

Miss B kept a record of the number of absences for each student in her class for one term. Here are her results.

0, 2, 5, 3, 0, 1, 1, 0, 2, 0

a) Write down the mode.

b) Work out the mean.

c) Calculate the range of the absences.

Averages

Probability

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Probability