

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.
 $\frac{180}{20} = 9$
- b) Tao is placing an order. He is going to order $\frac{1}{4}$ of the gnomes in each size. Is this correct?
 No as only 10% of the gnomes are XL.

Shoe Size	Frequency
4	4
5	11
6	12
7	3

- a) Calculate the median shoe size.
 $\frac{30+1}{2} = 15.5^{\text{th}}$ person
 average shoe size 5.5
- b) Calculate the mean shoe size.
 $\frac{164}{36} = 4.56$ (50.5)

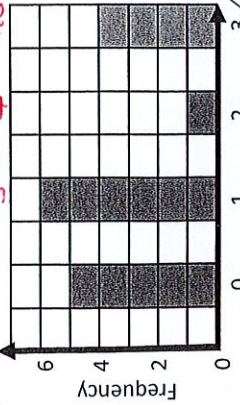
Compare the average goals scored of the two football teams. Which team is statistically the better football team?

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.

Hearts score: 39, 42, 39, 59
 Hibee score: 10, 15, 13, 28

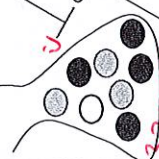


Averages

Averages from a table

PE Lesson	Frequency
0 < t ≤ 9	4.5
9 < t ≤ 15	12.9
15 < t ≤ 25	20.8
25 < t ≤ 35	30.3

- a) Estimate the median class.
 time: $\frac{25+1}{2} = 13^{\text{th}}$
 $9 < t \leq 15$
- b) Estimate the mean time.
 $\frac{583}{25} = 23.32$ secs



Probability and Averages Revision

www.missresout.com

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, 4, 1, 0, 2, 0
 0, 0, 0, 1, 2, 2, 3, 3

a) Write down the mode.
 0

b) Work out the mean.
 $\frac{0+2+5+3+0+4+1+0+2+0+0+0+1+2+2+3+3}{14} = 1.4$

c) Calculate the range of the absences.
 $5-0 = 5$

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 $\frac{4}{16} = \frac{1}{4}$
- b) Grey ball $\frac{3}{8}$
- c) Purple ball 0



Probability

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

Certain	An odd number
Unlikely	A multiple of 3
Impossible	A number less than 6
Evans	A number 7
Likely	

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 B because there are more Maltesers in bag A than bag B.
 Is she correct? Show all of your working out."

	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.

Erin has 85% of her slices land butter side up Poppy has 60% and Aleena has 78%.

There are 16 girls and 12 boys in a maths class. $\frac{3}{4}$ of the girls and $\frac{2}{3}$ of the boys arrive on time to lesson. The teacher selects a child at random from those who arrive late to hand out the books. Calculate the probability that child is a girl.

$\frac{16-12}{8} = \frac{4}{8} = \frac{1}{2}$

Probability