

Starter

1. Calculate

a. $3\frac{1}{3} - 1\frac{3}{4}$

b. $8 \div 3\frac{1}{5}$

2. If $d = (-2)$, $e = (-3)$ and $f = 5$, evaluate

a. $2de - f^2$

b. $d^3 + (f + e)^2$

c. $2(e - d)^3$

3. List the 5-figure summary for this data set

12, 26, 27, 19, 16, 29, 34, 18, 19, 13, 35

4. A supermarket increased its number of convenience stores by 25% in 2014.

If the company now had 125 stores, how many did they have in 2013?

Starter

1. Solve

a. $5(x - 4) = 2(2x + 3)$

b. $9 + 3x(2x + 1) - 6(x^2 - 3) = 0$

2. List the 5-figure summary for this data set

89, 45, 96, 58, 51, 64, 71, 90, 100, 45, 67, 74, 91

3. Samantha invests £3000 in an account which gives 4.5% interest p.a.
How much compound interest will she have earned after 2 years?

4. Jack and Jill had an argument. Jack walked off north at 4 kilometres per hour and Jill walk off east at 5 kilometres per hour.
How far apart were they after one hour?

Starter

1. Calculate

a. 2.89×500

b. $2.8 \div (80 \times 5)$

2. Jake scored 67 out of 80 in his Chemistry test and 54 out of 60 in his Physics test. In which subject did he get the highest mark?

3. List the 5-figure summary for this data set

12, 26, 27, 19, 16, 29, 34, 18, 19, 13, 31, 41

4. a. Complete the table and find the formula which links C and P .

Carriages (C)	2	3	4	5	6
Passengers (P)	46	71	96		

b. How many passengers can be carried if there are 9 carriages?

c. If 271 passengers want to travel, how many carriages will be needed?

Starter

1. Fully factorise

a. $6a^2b - 24ab^2$

b. $36f^2g^3h - 9fg^2h + 72fg$

2. List the 5-figure summary for this data set

12, 26, 27, 19, 16, 29, 34, 18, 19, 13, 31, 41

3. a. In April, the probability of it raining on any given day was $\frac{2}{5}$.
What was the probability of it being dry?

b. A car lot sells only Ford, Honda and BMW cars. If the probability of a customer choosing a Ford car is $\frac{4}{9}$ and a Honda car $\frac{1}{6}$, what is the probability of choosing a BMW car?

4. Marie invests £500 in a bank account paying interest of 6.5% p.a.
How long will it take for her money to double?

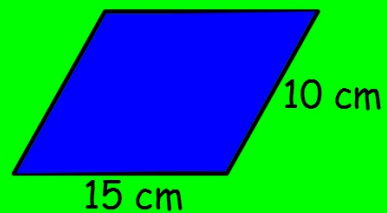
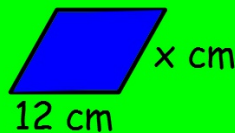
Starter

1. If $p = 10$, $q = (-2)$ and $r = 9$, evaluate

a. $q - pr$

b. $p - (r - p)^3$

2. These shapes are mathematically similar. Find x .



3. Iron carbide is made by combining carbon and iron in the ratio 2:5. If I prepare 840 grams of iron carbide, how much of the compound is carbon?

4. a. List the 5-figure summary for this data set

105, 95, 70, 85, 90, 115, 80, 100, 135, 115, 90, 55

b. Draw a box plot to represent the data.