

Starter

1. Express as a product of prime factors

a. 54

b. 660

2. If $d = 1$, $e = (-3)$ and $f = 5$, evaluate

a. $3de + f^2$

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

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

3. Find the mode, median and range of this data set

12, 24, 27, 19, 13, 29, 34, 18, 19

4. David has £ x . His brother Graeme has twice as much as David, and their sister Jane has £6 more than David. Altogether they have £42. How much money does David have?

Starter

1. Round the following to 3 s.f.

a. 0.06742

b. 345.9

c. 1837005

2. Find the mode, median and range of this data set

249, 256, 229, 237, 231, 249, 261, 260

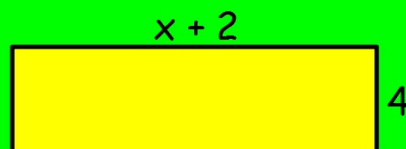
3. If $u = (-2)$, $v = (-1)$ and $w = 9$, evaluate

a. $uv - 4w$

b. $2(w - v)^2$

c. $u^2w - v^3$

4. Find x , given that the area of this rectangle is 28 cm^2 .



Starter

1. Calculate

a. $\frac{2}{7} + \frac{1}{2}$

b. $3\frac{2}{3} - 1\frac{1}{4}$

c. $\frac{3}{11} \times 2\frac{4}{9}$

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

a. $q - pr$

b. $pq^2 - pq$

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

3. Find the mode, median and range of this data set

5.6, 5.7, 4.9, 6.1, 5.6, 4.8, 5.2, 5.1, 5.9

4. A pipe which is 80 m long has its length extended by $\frac{2}{5}$ of its original length. What is its new length?

Starter

1. Calculate

a. 7000×0.25

b. $5.6 \div 80$

2. Find the mode, median and range of this data set

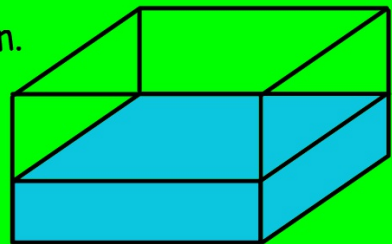
0.98, 0.64, 0.87, 0.77, 0.78, 0.87, 0.57, 0.92

3. Multiply out the brackets and simplify

a. $2(x + 9) - 3(x - 4)$

b. $15x^2 + 4x(x - 2) - 6(2x + 1)$

4. The base of this tank measures 40 cm by 50 cm.
30 L of water is poured into the tank.
What will the depth of the water be?



Starter

1. Calculate

a. 3.45×300

b. $1.459 - 0.0924$

2. Solve

a. $4(g - 10) = 3(g + 2)$

b. $10k - 2(k + 2) + 3(2k - 1) = 0$

3. Find the **mean**, median, mode and range of this data set

12, 15, 9, 13, 11, 12

4. a. Complete the table and find the formula which links V and D.

Velocity (V)	3	4	5	6	7	8
Distance (D)	1	5	9	13		

b. What distance is covered if $V = 12$?

c. If the distance travelled is 69m, find V.