1) Work out $\frac{1}{2} \times \frac{6}{7}$



2) Work out 0.35×6.7

3) Evaluate 5⁰

4) Expand 6x(4x - 3)

5) Complete: ? m/s = 18 km/hr

1) Find 75% of £460



2) Solve
$$4x - 7 = 11 - 2x$$

3) Make
$$x$$
 the subject of $y = \sqrt{ax}$

4) Find the nth term: 35, 38, 41, 44, ...

5) Work out
$$6^2 - (2 \times 5 + 3) \times 2$$

1) Expand and simplify (x + 8)(x - 4)



2) Work out 653.163×10^2

3) Distance = 12km, Time = 240 minutes,Speed = ? km/h

4) Work out $3\frac{2}{3} \times \frac{1}{4}$

5) Express 270 as a product of prime factors

1) Solve
$$\frac{10x+5}{3} = 2x - 5$$



2) List the first 4 terms of a geometric sequence with a first term of 3 and a common ratio of 4

3) Divide £35 in the ratio 3:7

4) Decrease £4560 by 5%

5) Simplify $(4x^2y^3)^3$

1) Simplify 2(3a - 2b) - (a - 2b)



2) Work out $1\frac{2}{5} \div 3\frac{1}{3}$

3) Work out $6 \times 2 + 8 \div 4$

4) Factorise fully $12x^3 + 18x^2$

5) Express 888 in standard form

1) What is the next term of this sequence: 6, 30, 150, 750, ...

2) Work out $420 \div 1.2$

3) Make x the subject of $y = \sqrt{x} + b$

4) Expand and simplify (x + 2)(x + 1)

5) Simplify $\frac{6x}{6} + \frac{3x}{8}$

1) Simplify
$$\frac{(2x^3y^2)^3}{2x^2y^2}$$



2) Factorise $25x^2 - 1$

3) If x = -3, find the value of $x^2 - x + 5$

4) If the nth term of a sequence is $3 \times 5^{n-1}$, find the 3rd term

5) Estimate, by rounding each number to 1 significant figure:

$$\frac{46.3 \times 17.3}{0.53}$$

1) Find the lowest common multiple of 24 and 40



2) Expand and simplify $(5x - 6)^2$

3) Express 0.00801 in standard form

4) A block has a mass of 240g and a density of 20g/cm³. Calculate its volume.

5) Make x the subject of $y = a - bx^2$

1) Find the distance:

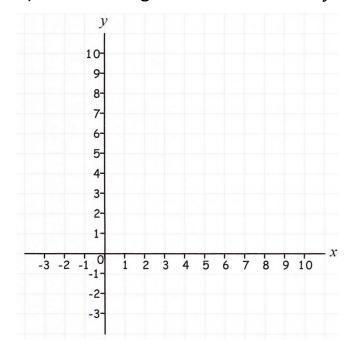
Speed = 40 km/h and time = 2 hour 45 mins



2) Factorise $x^2 - 6x + 8$

3) Expand and simplify $(x + 5)(x^2 - 3)$

- 4) Express 0.0007 in standard form
- 5) Find the gradient of the line 3y = 6x 5



1) Make x the subject of $y = (ax + b)^2$



2) Express $\frac{12}{30}$ as a percentage

3) Solve
$$\frac{x+2}{2} + \frac{4-2x}{5} = 6$$

4) By rounding each number to 1 significant figure, estimate $\frac{7.1 \times 83.99}{0.49}$

5) Find the first term: ?, 1, 6, 36, ...

1) Work out $1\frac{4}{5} \div 1\frac{1}{5}$



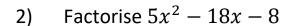
2) A price is decreased from £400 to £340. Calculate the percentage change.

3) Expand and simplify (x-4)(x-5)(x-3)

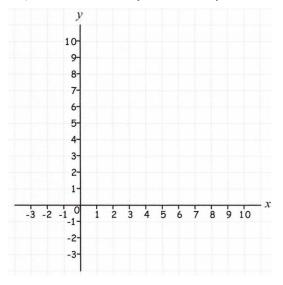
4) Expand and simplify $(10x - 1)^2$

5) What is the 30th term of this sequence: 13, 24, 35, 46, ...?

1) x is given as 2.0 to 1 decimal place.Write an inequality to show the range of values that x could take.



- 3) Work out $4 \times 10^8 \times 3 \times 10^{-2}$, giving the answer in standard form
- 4) Find the *y*-intercept of the line 2y + 3x = 5



5) Solve $\frac{x+1}{2} - 1 = x - 4$