1) Work out $\frac{1}{2} \times \frac{6}{7}$
2) Work out $0.35 \times 6.7$
3) Evaluate $5^{0}$
4) Expand $6 x(4 x-3)$
5) Complete: ? $\mathrm{m} / \mathrm{s}=18 \mathrm{~km} / \mathrm{hr}$
6) Find $75 \%$ of $£ 460$
7) Solve $4 x-7=11-2 x$
8) Make $x$ the subject of $y=\sqrt{a x}$
9) Find the nth term: $35,38,41,44, \ldots$
10) Work out $6^{2}-(2 \times 5+3) \times 2$
92.5
11) Expand and simplify $(x+8)(x-4)$
12) Work out $653.163 \times 10^{2}$
13) Distance $=12 \mathrm{~km}$, 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
92.6

1) Solve $\frac{10 x+5}{3}=2 x-5$
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) $\quad$ Simplify $\left(4 x^{2} y^{3}\right)^{3}$
93.5
6) Simplify $2(3 a-2 b)-(a-2 b)$
7) Work out $1 \frac{2}{5} \div 3 \frac{1}{3}$
8) Work out $6 \times 2+8 \div 4$
9) Factorise fully $12 x^{3}+18 x^{2}$
10) Express 888 in standard form
11) What is the next term of this sequence:

$$
6,30,150,750, \ldots
$$

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 $\frac{6 x}{6}+\frac{3 x}{8}$
94.5
6) Simplify $\frac{\left(2 x^{3} y^{2}\right)^{3}}{2 x^{2} y^{2}}$
7) Factorise $25 x^{2}-1$
8) If $x=-3$, find the value of $x^{2}-x+5$
9) If the $\mathrm{n}^{\text {th }}$ term of a sequence is $3 \times 5^{n-1}$, find the $3^{\text {rd }}$ term
10) Estimate, by rounding each number to 1 significant figure:
$\frac{46.3 \times 17.3}{0.53}$
11) Find the lowest common multiple of 24 and 40
12) Expand and simplify $(5 x-6)^{2}$
13) Express 0.00801 in standard form
14) A block has a mass of 240 g and a density of $20 \mathrm{~g} / \mathrm{cm}^{3}$.

Calculate its volume.
5) Make $x$ the subject of $y=a-b x^{2}$

1) Find the distance:

Speed $=40 \mathrm{~km} / \mathrm{h}$ and time $=2$ hour 45 mins
2) Factorise $x^{2}-6 x+8$
3) Expand and simplify $(x+5)\left(x^{2}-3\right)$
4) Express 0.0007 in standard form
5) Find the gradient of the line $3 y=6 x-5$


1) Make $x$ the subject of $y=(a x+b)^{2}$
2) Express $\frac{12}{30}$ as a percentage
3) Solve $\frac{x+2}{2}+\frac{4-2 x}{5}=6$
4) By rounding each number to 1 significant figure, estimate $\frac{7.1 \times 83.99}{0.49}$
5) Find the first term: ?, $1,6,36, \ldots$
96.5
6) Work out $1 \frac{4}{5} \div 1 \frac{1}{5}$
7) A price is decreased from $£ 400$ to $£ 340$. Calculate the percentage change.
8) Expand and simplify $(x-4)(x-5)(x-3)$
9) Expand and simplify $(10 x-1)^{2}$
10) What is the $30^{\text {th }}$ term of this sequence: $13,24,35,46, \ldots$ ?
96.6
11) $x$ is given as 2.0 to 1 decimal place.

Write an inequality to show the range of values that $x$ could take.
2) Factorise $5 x^{2}-18 x-8$
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 $2 y+3 x=5$

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

