| A1 State the gradient and the $y$-axis intercept of $y=3 x+7$ | A2 State the gradient and the $y$-axis intercept of $y=7 x-3$ | A3 State the gradient and the $y$-axis intercept of $y=3-7 x$ | A4 State the gradient and the $y$-axis intercept of $y=-7+3 x$ |
| :---: | :---: | :---: | :---: |
| B1 State the gradient and the $y$-axis intercept of $y=\frac{2}{3} x+7$ | B2 State the gradient and the $y$-axis intercept of $y=\frac{3}{4}+2 x$ | B3 State the gradient and the $y$-axis intercept of $y=3-\frac{2}{5} x$ | B4 State the gradient and the $y$-axis intercept of $y=\frac{1}{3} x+\frac{2}{3}$ |
| C1 Work out the gradient and the $y$-axis intercept of $2 y=4 x+10$ | C2 Work out the gradient and the $y$-axis intercept of $3 y=9-6 x$ | C3 Work out the gradient and the $y$-axis intercept of $3 y=2 x+1$ | C4 Work out the gradient and the $y$-axis intercept of $4 y=2 x-9$ |
| D1 Work out the gradient and the $y$-axis intercept of $y+8=4 x$ | D2 Work out the gradient and the $y$-axis intercept of $y+3 x=6$ | D3 Work out the gradient and the $y$-axis intercept of $2 x+y-3=0$ | D4 Work out the gradient and the $y$-axis intercept of $5 x=3+y$ |

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## STRAIGHT LINE GRAPHS

 THE STRAIGHT LINE EQUATION$$
y=m x+c
$$

Ref: G291

A1 State the gradient and the $y$-axis intercept of

$$
\begin{array}{ll}
y=3 x+7 & \\
& m=3 \\
& c=7
\end{array}
$$

B1 State the gradient and the $y$-axis intercept of

$$
\begin{aligned}
& y=\frac{2}{3} x+7 \\
& m=\frac{2}{3} \\
& c=7
\end{aligned}
$$

C1 Work out the gradient and the $y$-axis intercept of

$$
\begin{array}{ll}
2 y=4 x+10 & \\
y=2 x+5 & m=2 \\
& c=5
\end{array}
$$

D1 Work out the gradient and the $y$-axis intercept of

$$
\begin{aligned}
y+8 & =4 x \\
y & =4 x-8 \quad \begin{array}{l}
m=4 \\
c
\end{array}=-8
\end{aligned}
$$

A2 State the gradient and the $y$-axis intercept of

$$
y=7 x-3
$$

$$
\begin{aligned}
& m=7 \\
& c=-3
\end{aligned}
$$

$$
c=-3
$$

B2 State the gradient and the $y$-axis intercept of

$$
\begin{array}{ll}
y=\frac{3}{4}+2 x & m=2 \\
y=2 x+0.75 & c=0.75
\end{array}
$$

C2 Work out the gradient and the $y$-axis intercept of

$$
\begin{array}{ll}
3 y=9-6 x & \\
y=-2 x+3 & m=-2 \\
& c=3
\end{array}
$$

D2 Work out the gradient and the $y$-axis intercept of

$$
\begin{array}{rlrl}
y+3 x & =6 & \\
y & =-3 x+6 & & m=-3 \\
& c=6
\end{array}
$$

A3 State the gradient and the $y$-axis intercept of

$$
\begin{array}{ll}
y=3-7 x & \\
y=-7 x+3 & m=-7 \\
c=3
\end{array}
$$

B3 State the gradient and the $y$-axis intercept of

$$
\begin{array}{ll}
y=3-\frac{2}{5} x & m=-0.4 \\
y=-0.4 x+3 & c=3
\end{array}
$$

C3 Work out the gradient and the $y$-axis intercept of

$$
\begin{array}{rlrl}
3 y & =2 x+1 & m & =\frac{2}{3} \\
y & =\frac{2}{3} x+\frac{1}{3} & c & =\frac{1}{3}
\end{array}
$$

D3 Work out the gradient and the $y$-axis intercept of

$$
\begin{array}{ll}
\quad 2 x+y-3 & =0 \\
m=-2 & y=-2 x+3 \\
c=3 &
\end{array}
$$

A4 State the gradient and the $y$-axis intercept of

$$
\begin{array}{ll}
y=-7+3 x & \\
y=3 x-7 & m=3 \\
c=-7
\end{array}
$$

B4 State the gradient and the $y$-axis intercept of

$$
y=\frac{1}{3} x+\frac{2}{3}
$$

$$
\begin{aligned}
& m=\frac{1}{3} \\
& c=\frac{2}{3}
\end{aligned}
$$

C4 Work out the gradient and the $y$-axis intercept of

$$
\begin{array}{ll}
4 y=2 x-9 & \\
y=0.5 x-2.25 & m=0.5 \\
& c=-2.25
\end{array}
$$

D4 Work out the gradient and the $y$-axis intercept of

$$
\begin{array}{ll}
5 x & =3+y \\
y & =5 x-3
\end{array} \quad m=5
$$

