



STRAIGHT LINE GRAPHS

THE STRAIGHT LINE EQUATION

Ref: G291. **3S1**

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



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$$y = mx + c$$

Ref: G291. **3S1**

A1 State the gradient and the y-axis intercept of $y = 6x - 5$ $m = 6$ $c = -5$	A2 State the gradient and the y-axis intercept of $y = 7$ $y = 0x + 7$ $m = 0$ $c = 7$	A3 Work out the gradient and the y-axis intercept of $4y = x - 6$ $y = \frac{1}{4}x - 1.5$ $m = 0.25$ $c = -1.5$	A4 Work out the gradient and the y-axis intercept of $5 + 3x = 2y$ $y = 1.5x + 2.5$ $m = 1.5$ $c = 2.5$
B1 State the gradient and the y-axis intercept of $y = 4x$ $y = 4x + 0$ $m = 4$ $c = 0$	B2 State the gradient and the y-axis intercept of $y = 4 - 2x$ $y = -2x + 4$ $m = -2$ $c = 4$	B3 State the gradient and the y-axis intercept of $y = x - 3$ $y = 1x - 3$ $m = 1$ $c = -3$	B4 State the gradient and the y-axis intercept of $y = -x$ $y = -1x + 0$ $m = -1$ $c = 0$
C1 Work out the gradient and the y-axis intercept of $3y = 2x + 9$ $y = \frac{2}{3}x + 3$ $m = \frac{2}{3}$ $c = 3$	C2 State the gradient and the y-axis intercept of $y = 5 - x$ $y = -1x + 5$ $m = -1$ $c = 5$	C3 State the gradient and the y-axis intercept of $y = x$ $y = 1x + 0$ $m = 1$ $c = 0$	C4 Work out the gradient and the y-axis intercept of $3y + 4x = 6$ $y = -\frac{4}{3}x + 2$ $m = -\frac{4}{3}$ $c = 2$
D1 Work out the gradient and the y-axis intercept of $4y + 8 = 2x$ $y = \frac{1}{2}x - 2$ $m = 0.5$ $c = -2$	D2 Work out the gradient and the y-axis intercept of $\frac{1}{2}y = 10 + 4x$ $y = 8x + 20$ $m = 8$ $c = 20$	D3 Work out the gradient and the y-axis intercept of $x - y + 7 = 0$ $y = 1x + 7$ $m = 1$ $c = 7$	D4 Work out the gradient and the y-axis intercept of $9 = 3x + 2y$ $y = -\frac{3}{2}x + 4.5$ $m = -1.5$ $c = 4.5$