Equations using one point and the gradient

Example

Find the equation of the line that goes through $\left(3,5\right)$ and has gradient 2.

Quickfire Questions

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| **Gradient** | **Point** | **(Unsimplified) Equation** |
| $$3$$ | $$\left(1,2\right)$$ |  |
| $$5$$ | $$\left(3,0\right)$$ |  |
| $$2$$ | $$\left(-3,4\right)$$ |  |
| $$\frac{1}{2}$$ | $$\left(1,-5\right)$$ |  |
| $$9$$ | $$\left(-4,-4\right)$$ |  |

Finding a line using 2 Points:

Example

1. Find the equation of the line that goes through $\left(4,5\right)$ and $\left(6,2\right)$, giving your equation in the form $ax+by+c=0$.

**Test Your Understanding:**

1. Find the equation of the line that goes through $\left(-1,9\right)$ and $\left(4,5\right)$, giving your equation in the form $ax+by+c=0$.

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