## Fill in the Blanks

Finding the Equation of a Line Through Two Points

| $\left(\boldsymbol{x}_{\mathbf{1}}, \boldsymbol{y}_{\mathbf{1}}\right)$ | $\left(\boldsymbol{x}_{2}, \boldsymbol{y}_{2}\right)$ | Find $\boldsymbol{m}$ using $\frac{\boldsymbol{y}_{2}-\boldsymbol{y}_{\mathbf{1}}}{\boldsymbol{x}_{2}-\boldsymbol{x}_{\mathbf{1}}}$ | Gradient $\boldsymbol{m}$ | Find $\boldsymbol{c}$ using $\boldsymbol{y}=\boldsymbol{m} \boldsymbol{x}+\boldsymbol{c}$ | Equation of Line |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $(1,3)$ | $(2,5)$ | $\frac{5-3}{2-1}=\frac{2}{1}$ | 2 | $3=2 \times 1+c$ <br> $c=1$ | $y=2 x+1$ |
| $(2,0)$ | $(5,9)$ |  |  |  |  |
| $(4,1)$ | $(5,6)$ |  |  |  |  |
| $(7,11)$ | $(8,10)$ |  |  |  |  |
| $(2,-3)$ | $(5,3)$ |  |  |  |  |
| $(3,-2)$ | $(1,8)$ |  |  |  |  |
| $(-6,-1)$ | $(-2,1)$ |  |  |  |  |
| $(9,7)$ | $(3,9)$ |  |  |  |  |
| $\left(\frac{1}{2},-3\right)$ | $\left(-\frac{1}{2},-\frac{5}{2}\right)$ |  |  |  |  |

