**Samples** **Gradient and intercept SOLUTIONS**

**1.** Rewrite the equation as $y = mx + c$ :

$$\begin{aligned} 0 &= 4y - 7 - 2x, \quad \text{so} \\ -4y &= -2x - 7 \\ y &= \frac{1}{2}x + \frac{7}{4} \end{aligned}$$

Hence the gradient is $m = \frac{1}{2}$ and the $y$-intercept is $c = \frac{7}{4}$.

**2.** Rewrite the equation as $y = mx + c$ :

$$\begin{aligned} 0 &= 6x + 4 - 5y, \quad \text{so} \\ 5y &= 6x + 4 \\ y &= \frac{6}{5}x + \frac{4}{5} \end{aligned}$$

Hence the gradient is $m = \frac{6}{5}$ and the $y$-intercept is $c = \frac{4}{5}$.

**3.** Rewrite the equation as $y = mx + c$ :

$$\begin{aligned} 6 - 3x &= 4y, \quad \text{so} \\ -4y &= 3x - 6 \\ y &= -\frac{3}{4}x + \frac{3}{2} \end{aligned}$$

Hence the gradient is $m = -\frac{3}{4}$ and the $y$-intercept is $c = \frac{3}{2}$.