



## Quick Test - Rearranging formulae

1. Make  $t$  the subject of the formula  $v = \frac{1}{5}t + 5w$

$$\begin{aligned} v - 5w &= \frac{1}{5}t \\ \times 5 & \qquad \qquad \times 5 \\ \underline{5(v - 5w)} &= \underline{t} \end{aligned} \qquad \qquad \qquad t = \underline{\underline{5(v - 5w)}}$$

2. Make  $h$  the subject of the formula

$$\begin{aligned} (m)^2 &= \left(\sqrt{\frac{2h+1}{3}}\right)^2 \\ m^2 &= \frac{2h+1}{3} \\ \times 3 & \qquad \qquad \times 3 \\ 3m^2 &= 2h+1 \\ & \qquad \qquad \qquad \rightarrow \begin{aligned} 3m^2 &= 2h+1 \\ -1 & \qquad \qquad -1 \\ 3m^2 - 1 &= 2h \\ \div 2 & \qquad \qquad \div 2 \\ \frac{3m^2 - 1}{2} &= h \\ \underline{\underline{h}} &= \underline{\underline{\frac{3m^2 - 1}{2}}} \end{aligned} \end{aligned}$$

3. Make  $y$  the subject of the formula

$$\begin{aligned} 3(y + 2) &= 5a - 2y \\ 3y + 6 &= 5a - 2y \\ +2ay & \qquad \qquad +2ay \\ 3y + 2ay + 6 &= 5a \\ -6 & \qquad \qquad -6 \\ 3y + 2ay &= 5a - 6 \\ \rightarrow y(3 + 2a) &= 5a - 6 \\ \underline{\underline{y}} &= \underline{\underline{\frac{5a - 6}{3 + 2a}}} \end{aligned}$$