



Quick Test - Rearranging formulae

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

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

2. Make h the subject of the formula

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

3. Make y the subject of the formula

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