



## REARRANGING FORMULAE

### TWO-STEP PROBLEMS

Ref: G241. **2E1**

<b>A1</b> Make $x$ the subject of $p = mq + nx$	<b>A2</b> Make $x$ the subject of $a = wxy + pq$	<b>A3</b> Make $x$ the subject of $a = x(a + b) - bc$	<b>A4</b> Make $x$ the subject of $p = \frac{x}{m+n} + q$
<b>B1</b> Make $x$ the subject of $Q = \frac{5a+x}{b^2}$	<b>B2</b> Make $x$ the subject of $t = \frac{x}{ab} + 3n^2$	<b>B3</b> Make $x$ the subject of $R = \frac{x-pq}{3a}$	<b>B4</b> Make $x$ the subject of $11 + a = \frac{x}{2m^2} + b$
<b>C1</b> Make $x$ the subject of $h = kx^2$	<b>C2</b> Make $x$ the subject of $p = \frac{x^2}{7}$	<b>C3</b> Make $x$ the subject of $m = \frac{\sqrt{x}}{4}$	<b>C4</b> Make $x$ the subject of $W = u\sqrt{x}$
<b>D1</b> Make $x$ the subject of $e = \sqrt{\frac{x}{5}}$	<b>D2</b> Make $x$ the subject of $p = \frac{x^2}{a-7}$	<b>D3</b> Make $x$ the subject of $f = \sqrt{ax}$	<b>D4</b> Make $x$ the subject of $n = (x-6)^2$
<b>E1</b> Make $x$ the subject of $m = \frac{x+n^2}{m}$	<b>E2</b> Make $x$ the subject of $a = \frac{\sqrt{n+x}}{ab}$	<b>E3</b> Make $x$ the subject of $p = \frac{x+p^2}{p+q}$	<b>E4</b> Make $x$ the subject of $a = x(a+b) + b$



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<p><b>A1</b> Make <math>x</math> the subject of</p> $p = mq + nx \quad nx = p - mq$ $x = \frac{p - mq}{n}$	<p><b>A2</b> Make <math>x</math> the subject of</p> $a = wxy + pq \quad wxy = a - pq$ $x = \frac{a - pq}{wy}$	<p><b>A3</b> Make <math>x</math> the subject of</p> $a = x(a + b) - bc$ $x(a + b) = a + bc \quad x = \frac{a + bc}{a + b}$	<p><b>A4</b> Make <math>x</math> the subject of</p> $p = \frac{x}{m + n} + q \quad \frac{x}{m + n} = p - q$ $x = (p - q)(m + n)$
<p><b>B1</b> Make <math>x</math> the subject of</p> $Q = \frac{5a + x}{b^2} \quad 5a + x = b^2Q$ $x = b^2Q - 5a$	<p><b>B2</b> Make <math>x</math> the subject of</p> $t = \frac{x}{ab} + 3n^2 \quad \frac{x}{ab} = t - 3n^2$ $x = ab(t - 3n^2)$	<p><b>B3</b> Make <math>x</math> the subject of</p> $R = \frac{x - pq}{3a} \quad x - pq = 3aR$ $x = 3aR + pq$	<p><b>B4</b> Make <math>x</math> the subject of</p> $11 + a = \frac{x}{2m^2} + b$ $x = 2m^2(11 + a - b)$
<p><b>C1</b> Make <math>x</math> the subject of</p> $h = kx^2$ $x^2 = \frac{h}{k}$ $x = \sqrt{\frac{h}{k}}$	<p><b>C2</b> Make <math>x</math> the subject of</p> $p = \frac{x^2}{7} \quad x^2 = 7p$ $x = \sqrt{7p}$	<p><b>C3</b> Make <math>x</math> the subject of</p> $m = \frac{\sqrt{x}}{4} \quad \sqrt{x} = 4m$ $x = (4m)^2 \text{ or } x = 16m^2$	<p><b>C4</b> Make <math>x</math> the subject of</p> $W = u\sqrt{x}$ $\sqrt{x} = \frac{W}{u}$ $x = \left(\frac{W}{u}\right)^2$
<p><b>D1</b> Make <math>x</math> the subject of</p> $e = \sqrt{\frac{x}{5}} \quad \frac{x}{5} = e^2$ $x = 5e^2$	<p><b>D2</b> Make <math>x</math> the subject of</p> $p = \frac{x^2}{a - 7} \quad x^2 = p(a - 7)$ $x = \sqrt{p(a - 7)}$	<p><b>D3</b> Make <math>x</math> the subject of</p> $f = \sqrt{ax} \quad ax = f^2$ $x = \frac{f^2}{a}$	<p><b>D4</b> Make <math>x</math> the subject of</p> $n = (x - 6)^2 \quad x - 6 = \sqrt{n}$ $x = \sqrt{n} + 6$
<p><b>E1</b> Make <math>x</math> the subject of</p> $m = \frac{x + n^2}{m} \quad x + n^2 = m^2$ $x = m^2 - n^2$	<p><b>E2</b> Make <math>x</math> the subject of</p> $a = \frac{\sqrt{n} + x}{ab} \quad \sqrt{n} + x = a^2b$ $x = a^2b - \sqrt{n}$	<p><b>E3</b> Make <math>x</math> the subject of</p> $p = \frac{x + p^2}{p + q} \quad x + p^2 = p(p + q)$ $x = p(p + q) - p^2 = pq$	<p><b>E4</b> Make <math>x</math> the subject of</p> $a = x(a + b) + b$ $x(a + b) = a - b$ $x = \frac{a - b}{a + b}$