

FORMULAE

- $v = u + at$

Find ...

(a) v when $u = 5$, $a = 7$, $t = 3$

$$v = u + at \quad \text{formula}$$

$$v = 5 + 7 \times 3 \quad \text{substitute}$$

$$v = 5 + 21 \quad \text{multiply}$$

$$v = 26 \quad \text{add}$$

(b) v when $u = 28$, $a = 7$, $t = -10$

$$v = u + at \quad \text{formula}$$

$$3 = 28 - 10t \quad \text{substitute}$$

$$10t = 28 - 3 \quad \text{solve}$$

$$10t = 25$$

$$t = 2.5$$

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- $E = \frac{1}{2}mv^2$

Find ...

(a) E when $m = 5$, $v = 6$

$$E = \frac{1}{2}mv^2 \quad \text{formula}$$

$$E = \frac{5 \times 6^2}{2} \quad \text{substitute}$$

$$E = \frac{5 \times 36}{2} \quad \text{square}$$

$$E = 90 \quad \text{multiply/divide}$$

(b) v when $E = 160$, $m = 5$

$$E = \frac{1}{2}mv^2 \quad \text{formula}$$

$$160 = \frac{5 \times v^2}{2} \quad \text{substitute}$$

$$320 = 5 \times v^2 \quad \text{solve}$$

$$64 = v^2$$

$$\sqrt{64} = v$$

2

- WE DO NOT ...



change the subject of (rearrange) the formula

FORMULAE

PERIMETER OF 

$$P = 2(l + b)$$

Find **P** when $l = 6$ cm, $b = 4$ cm

$$P = 2(l + b)$$

$$P = 2(6 + 4)$$

$$P = 20 \text{ cm}$$

AREA OF 

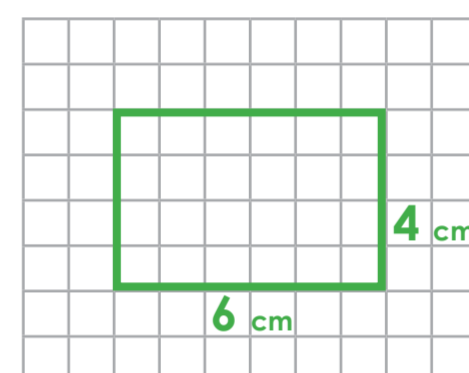
$$A = l \times b$$

Find **A** when $l = 6$ cm, $b = 4$ cm

$$A = l \times b$$

$$A = 6 \times 4$$

$$P = 24 \text{ cm}^2$$



AREA OF 

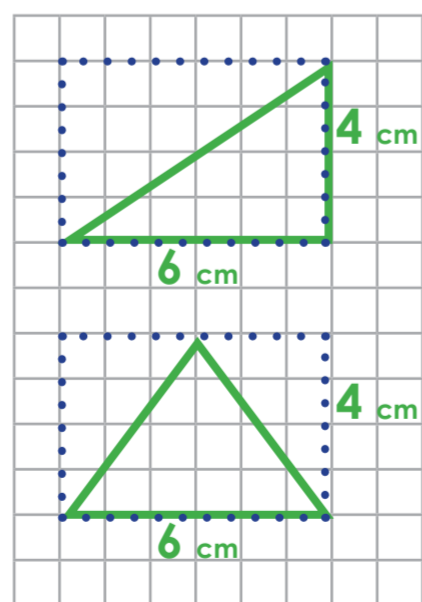
$$A = \frac{1}{2} \times b \times h$$

Find **A** when $b = 6$ cm, $h = 4$ cm

$$A = \frac{1}{2} (b \times h)$$

$$A = \frac{1}{2} (6 \times 4)$$

$$P = 12 \text{ cm}^2$$



VOLUME OF 

$$V = l \times b \times h$$

Find **V** when

$l = 6$ cm, $b = 4$ cm, $h = 2$ cm

$$V = l \times b \times h$$

$$V = 6 \times 4 \times 2$$

$$V = 48 \text{ cm}^3$$