

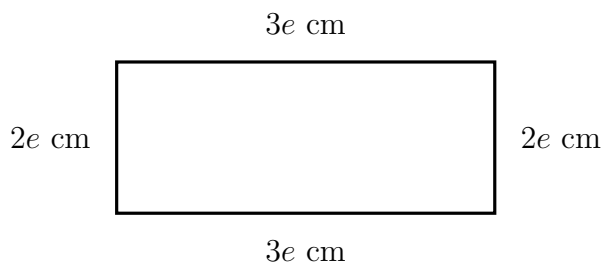
No calculator

1. You may use the diagrams to help you answer these questions.

(a) Work out the value of P

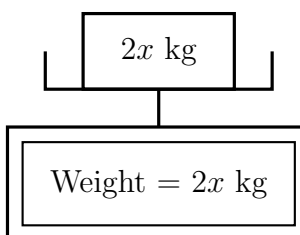
$$P = 10e$$

$$e = 7$$

Diagram NOT
accurately drawnPerimeter = $10e$ cm(b) Work out the value of W

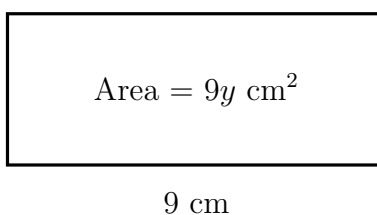
$$W = 2x$$

$$x = 15$$

(c) Work out the value of A

$$A = 9y$$

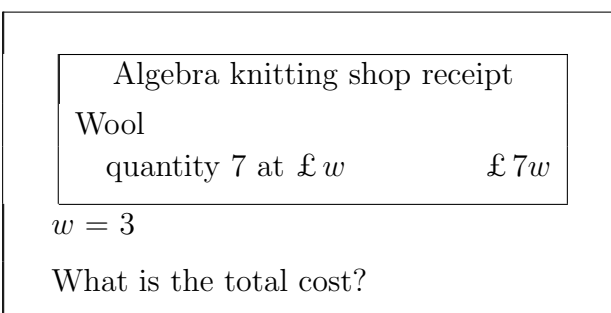
$$y = 6$$

y cm Diagram NOT
accurately drawn

{You may use the word and algebra problems to help you answer these questions.}

(d) $C = 7w$

$$w = 3$$

Work out the value of C .

(e)

$$u = 5w$$

$$w = 7$$

Work out the value of u Wiktor is w years old.

Ulf is five times as old as Wiktor.

$$w = 7$$

How old is Ulf?

(f)

$$n = 7t$$

$$t = 10$$

Work out the value of n A hotel buys 7 packs of t hand towels.Number of towels the hotel buys = $7t$

$$t = 10$$

How many towels did the hotel buy?

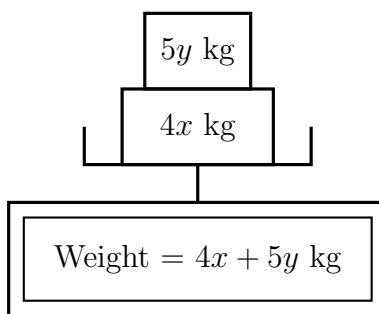
2. {No calculator: Students may use the diagrams / algebra and word problems to help them.}

(a) Work out the value of W

$$W = 4x + 5y$$

$$x = 3$$

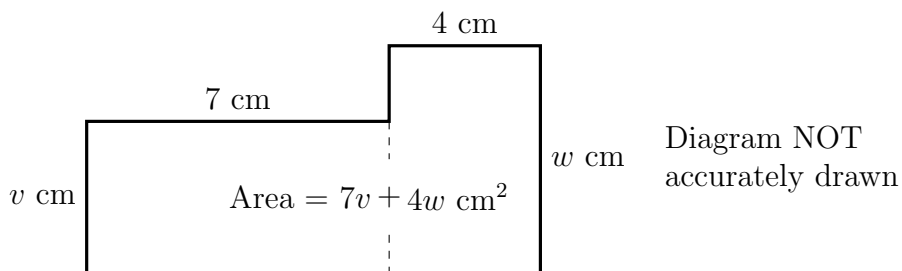
$$y = 6$$



(b) $A = 7v + 4w$

$$v = 3$$

$$w = 5$$



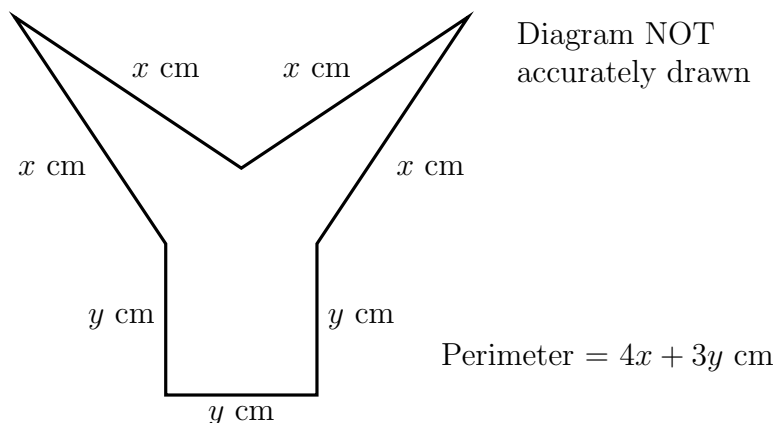
Work out the value of A

(c) $P = 4x + 3y$

$$x = 5$$

$$y = 3$$

Work out the value of P



(d)

$$T = 10c + 8d$$

$$c = 5$$

$$d = 2$$

Work out the value of T

A chef makes c chocolate cakes and d Dundee cakes. She cuts the chocolate cakes into 10 slices and the Dundee cakes into 8 slices

$$\text{Total slices of cake} = 10c + 8d$$

$$c = 5$$

$$d = 2$$

How many slices of cake did the chef make?

(e)

$$n = 2$$

$$w = 5$$

$$C = 2n + 9w$$

Work out the value of C

Algebra knitting shop receipt	
2 needles at £ n	£ $2n$
9 balls of wool at £ w	£ $9w$
Total	£ $2n + 9w$

What is the total cost when $n = 2$ and $w = 5$?

3. {No calculator similar to strand 1 but no context}

(a) $u = 4t$

$$t = 9$$

Find the value of u

(b) $A = 3w$

Work out the value of A when $w = 5$

(c) $x = 6$

Work out the value of $3x$

4. {No calculator similar to strand 2 but no context}

(a) $p = 3$

$$q = 8$$

Work out the value of $7p + 2q$

(b) $y = 7n + 3d$

$$n = 2$$

$$d = 5$$

Work out the value of y

(c) $x = 30$

$$y = 9$$

$$P = 2x + 3y$$

Find the value of P

5. {No calculator similar to strand 4 but with ONE negative (never negative \times negative)}

(a) $n = 4$

$$d = -5$$

Work out the value of $7n + 3d$

(b) $p = -5$

$$q = 3$$

$$W = 7p + 2q$$

Find the value of W