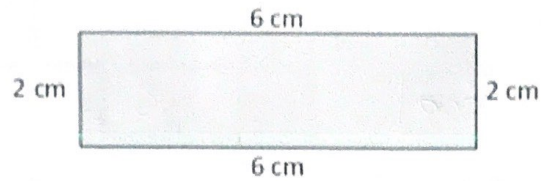


Perimeter – measuring shapes

Perimeter is the total length around the outside of an enclosed space.

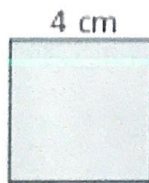
To find the perimeter of this shape, we add the lengths of all the sides.



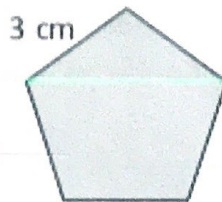
$$P = 6 + 2 + 6 + 2$$

$$= 16 \text{ cm}$$

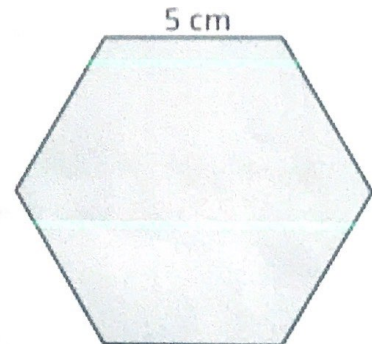
Show how to find the perimeter of these shapes with an addition sentence and a multiplication sentence for each. Shape A has been done for you.



Shape A



Shape B

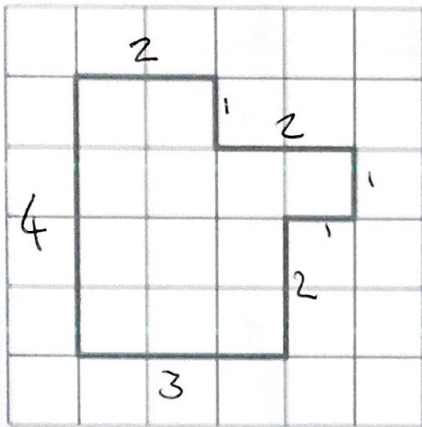


Shape C

Shape	Perimeter by addition	Perimeter by multiplication
A	$4 + 4 + 4 + 4 = 16 \text{ cm}$	$4 \text{ sides} \times 4 \text{ cm} = 16 \text{ cm}$
B	$3 + 3 + 3 + 3 + 3 = 15 \text{ cm}$	$5 \text{ sides} \times 3 \text{ cm} = 15 \text{ cm}$
C	$5 + 5 + 5 + 5 + 5 + 5 = 30 \text{ cm}$	$6 \text{ sides} \times 5 \text{ cm} = 30 \text{ cm}$

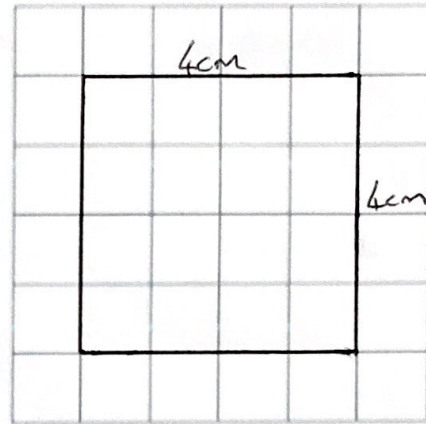
Here are more square centimetre grids.

- a What is the perimeter of this irregular shape?



P = 16 cm

- b Draw a square with the same perimeter.



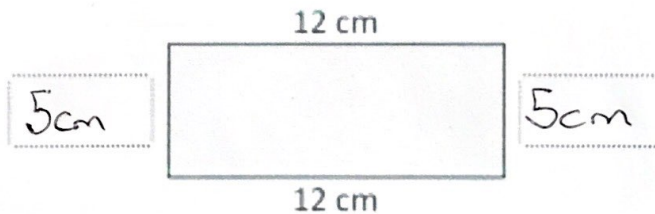
Solve these perimeter problems:

- a Pablo drew a rectangle in his workbook. The perimeter of the rectangle was 34 cm. Two sides are 12 cm long. How long are the other two sides?

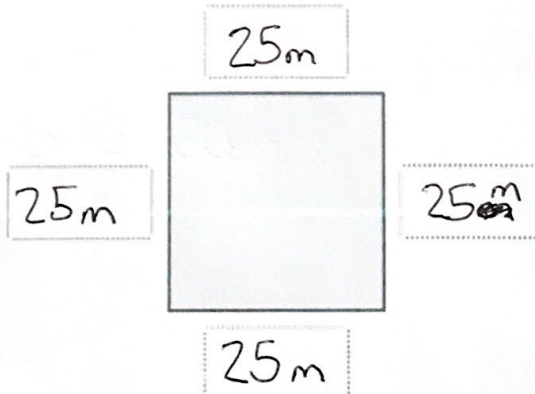
$$12 + 12 = 24$$

$$34 - 24 = 10$$

$$10 \div 2 = 5$$



- b The perimeter of a square shaped pool is 100 m. What are the measurements of the pool?

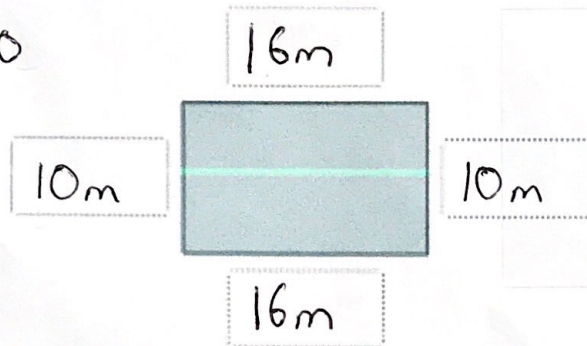


$$4 \overline{) 100} \begin{array}{r} 25 \\ \underline{4 \times 25} \\ 100 \\ \underline{4 \times 25} \\ 0 \end{array}$$

West Thyme Primary School is adding a new fence around the outside of the playground. The playground is rectangular shaped. One length is 16 m. The perimeter is 52 m. What are all the measurements of the playground?

$$16 + 10 + 16 + 10$$

$$= 52\text{m}$$

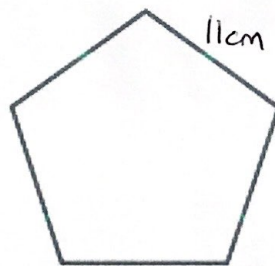


$$16 + 16 = 32$$

$$52 - 32 = 20$$

$$20 \div 2 = 10\text{m}$$

Liam made a pentagon from magnetic sticks. If the perimeter of his shape is 55 cm, what is the length of one side?



Length of one side = 11cm

$$5 \overline{) 55} \quad \begin{array}{l} 11 \text{ cm} \\ \hline \end{array}$$