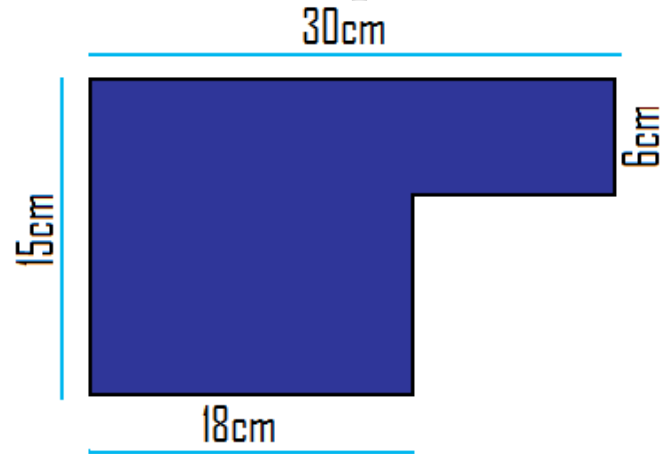


Quantitative Methods

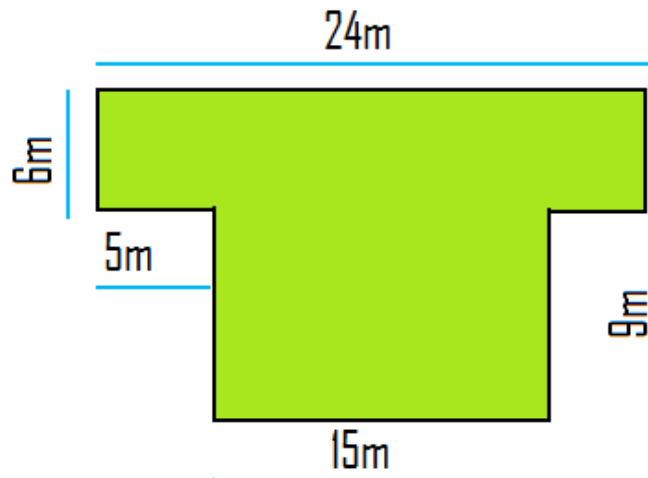
Perimeters

Module No. Cons 1012
Lecturer Jennifer Byrne

Q 1 Find the perimeter of the shape below

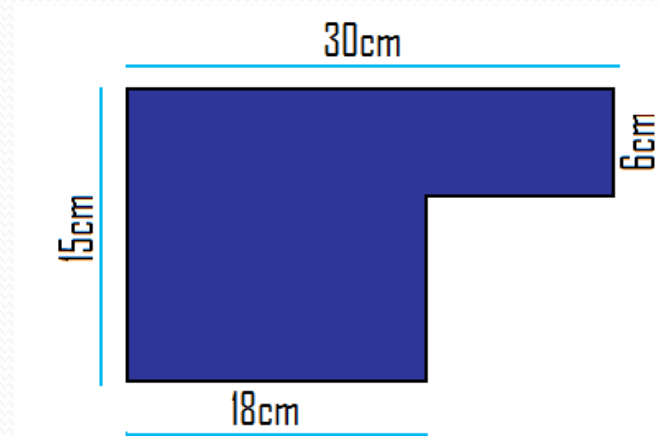


Q 2 Find the amount of skirting needed for the Floor below



Ans 1

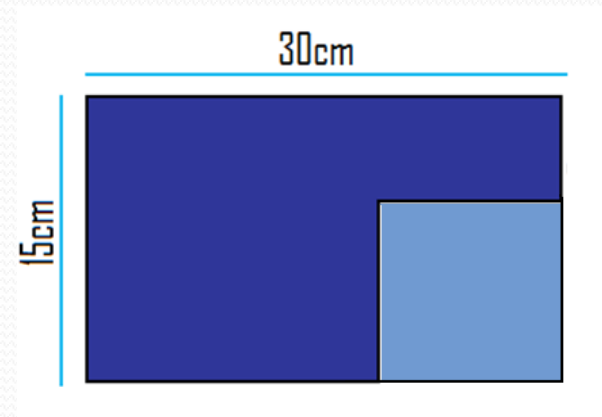
$$15 + 30 + 6 + 12 + 9 + 18 = 90 \text{ cm}$$



OR

Ans 1 If you pull the corners back out you get a rectangle shape which does not affect the perimeter.

$$2 (15 + 30) = 90 \text{ cm}$$



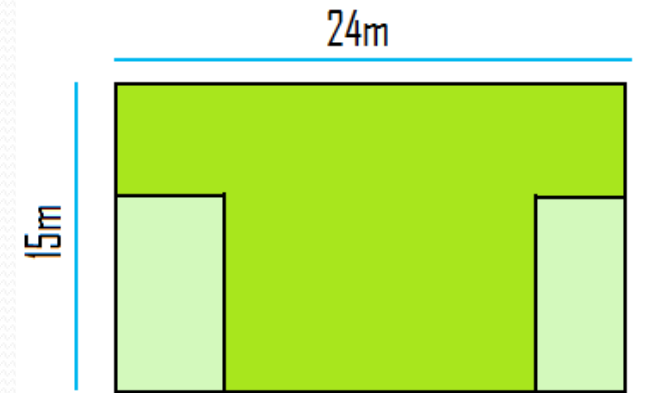
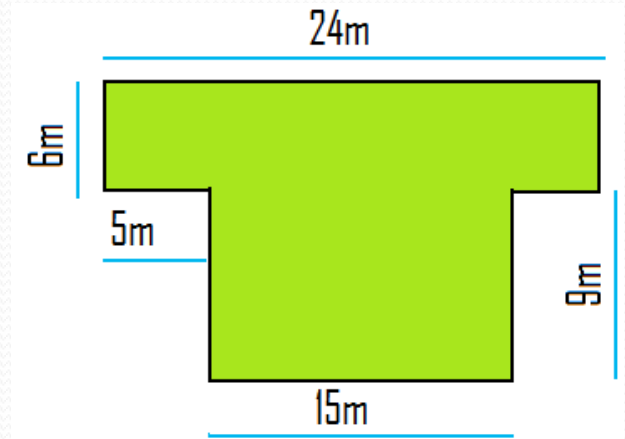
Ans 2

$$24 + 6 + 4 + 9 + 15 + 9 + 5 + 6 = 78\text{cm}$$

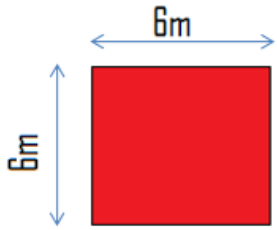
or

If you pull the corners back out you get a rectangle shape which does not affect the perimeter

$$\text{Ans 2} \quad 2(24 + 15) = 78\text{m}$$

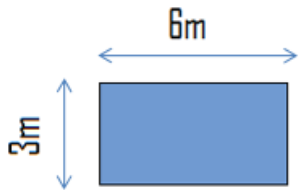


Perimeters



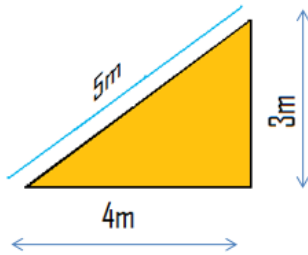
Square: Sum of 4 sides
 $4 \times \text{Length} = \text{Perimeter}$

$$4 \times 6 = 24\text{m}$$



Rectangle: Sum of 4 sides
 $2 \times \text{Length} + \text{Width} = \text{Perimeter.}$

$$2(6 + 3) = 18\text{m}$$



Triangle: Sum of 3 sides

$$3 + 4 + 5 = 12\text{m}$$



Diameter = 6m

Circle: Length of Circumference $2\pi r = \text{perimeter}$
 $2 \times 3.14 \times 3 = 18.84\text{m}$

\emptyset = diameter r = radius

Perimeter Sheet 1

- Find the perimeter of the following Squares:
 - Q₁ Side 32m
 - Q₂ Side 14m
 - Q₃ Side 21m

- Find the perimeter of the following Rectangles:
 - Q₁ Length 4.71m width 2.1
 - Q₂ Length 6.23m width 3m
 - Q₃ Length 4.25m width 1.05

- Find the Circumference of the following Circles:
 - Q₁ Diameter = 25m
 - Q₂ Radius = 6m
 - Q₃ Diameter = 42m

Perimeter Sheet 1 Answers

- Find the perimeter of the following Squares:

- 1 $32 \times 4 = 128\text{m}$

- 2 $14 \times 4 = 56\text{m}$

- 3 $21 \times 4 = 84\text{m}$

- Find the perimeter of the following Rectangles:

- 1 $2(4.71 + 2.1) = 13.62\text{m}$

- 2 $2(6.23 + 3) = 18.46\text{m}$

- 3 $2(4.25 + 1.05) = 10.60\text{m}$

- Find the Circumference of the following Circles:

- 1 $2 \times 3.14 \times 12.5 = 78.5\text{m}$

- 2 $2 \times 3.14 \times 6 = 37.68\text{m}$

- 3 $2 \times 3.14 \times 21 = 131.88\text{m}$