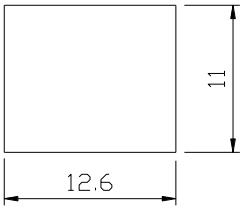
Learner Self-reflection 4 – 24361 (v2) Apply mathematical processes to BCATS projects

Student name:

These shapes are all commonly found on building, construction and manufacturing sites and form the basis of most quantity and costing exercises. All dimensions are in metres.

1. Calculate the **area.**

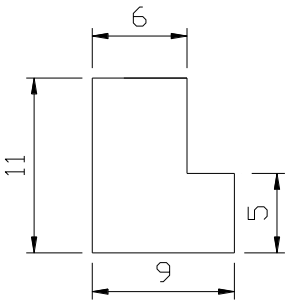
Calculations:



Answer:

2. Calculate the **area**.

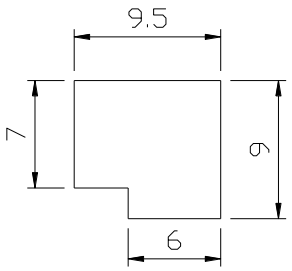
Calculations:



Answer:

3. Calculate the **perimeter and the area**.

Calculations for perimeter:



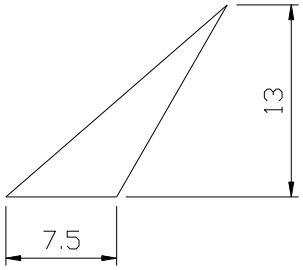
Answer:

Calculations for area:

Answer:

4. Calculate the **area**

Calculations:

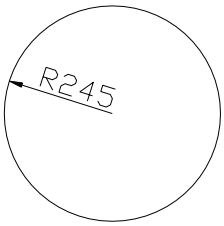


Answer:

Calculate the **areas** of the following circles.

5. Circle with a radius of 245mm.

Calculations:



Answer:

6. Circle with a diameter of 25m.

Calculations:

Answer:

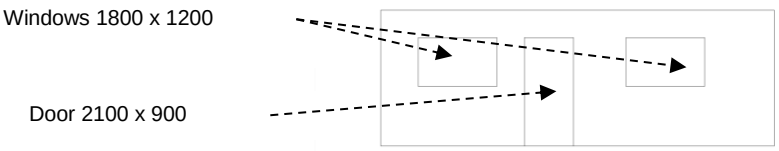
7. Circle with a radius of 12m.

Calculations:

Answer:

A room measuring 7300 x 3800mm needs to be painted.
It has one door measuring 2100 x 900mm.
It has two windows each measuring 1800 x 1200mm.
The wall height is 2400mm.

8. Calculate how many square metres of wall area needs painting.



b) Calculate the amount of paint required to apply one coat to the internal walls. One litre of paint covers approximately $16m^2$.

c) The ceiling of the room is also to be painted. Calculate the total amount of paint needed to coat both the ceiling and the walls.

d) A painter can cover 7 sq. metres in an hour. Calculate how long it would take to paint the internal walls and ceiling of the room.