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

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| **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:

1. Calculate the **area**.



Calculations:

Answer:

1. Calculate the **perimeter and the area**.

Calculations for perimeter:



Answer:

Calculations for area:

Answer:

1. Calculate the **area**



Calculations:

Answer:

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

1. Circle with a radius of 245mm.



Calculations:

Answer:

1. Circle with a diameter of 25m.

Calculations:

Answer:

1. 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.**

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



Windows 1800 x 1200

Door 2100 x 900

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**b)** Calculate the amount of paint required to apply one coat to the internal walls. One litre of paint covers approximately 16m2.

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**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.

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**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.

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