

Problem Solving – EGYPTIAN TOMB Set

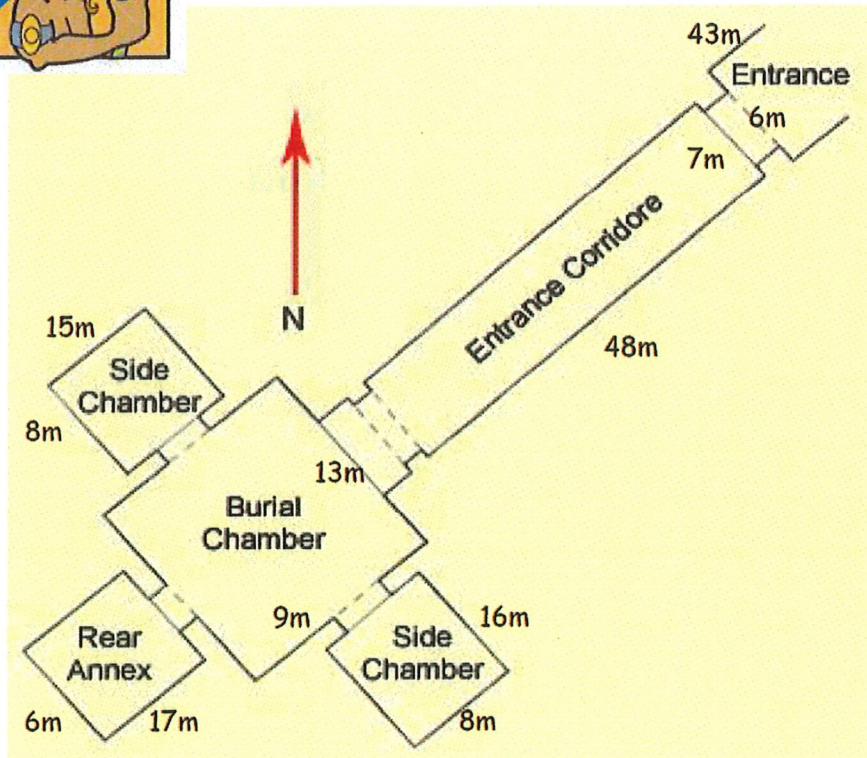
Area, circumference

<http://www.learnersgrid.com>

Egyptian Tomb Set 1 [1]



Egyptian Area The Tomb of Tyti



Find the area of
The following rooms

- Side chamber 1 =
- Entrance =
- Side Chamber 2 =
- Rear annex =
- Burial chamber =
- Entrance Corridore =

What is the TOTAL area
of this tomb?

Egyptian Tomb Set 1 [2]



A farmer uses some fencing to
construct a square pen to hold some
sheep.

The area of the pen in 256m^2 .

What is the length of each side of this
pen?

Problem Solving – EGYPTIAN TOMB Set

Area, circumference

<http://www.learnersgrid.com>

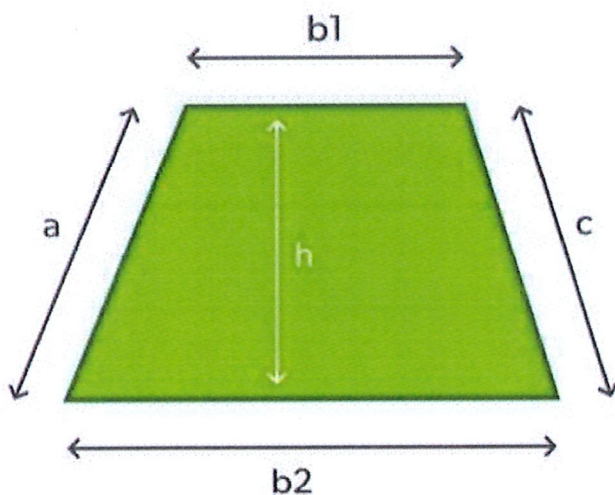
Egyptian Tomb Set 1 [3]



A rectangular swimming pool has an area of 800m^2 and a width of 16m .

Calculate the length of the pool.

Egyptian Tomb Set 1 [4]



Strontium Habbernathy has a lawn which is a trapezium shape (see left).

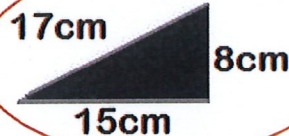
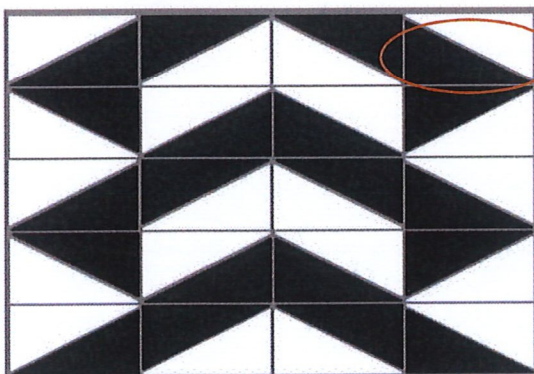
The distance from side b_1 to side b_2 is 20m .

The length of the side labelled " b_1 " is 8.5m .
The length of the side labelled " b_2 " is 10.5m .

The length of the side labelled " a " is 21.2m .
The length of the side labelled " c " is 21.6m .

Give the area of Strontium's lawn (round answer to 1 d.p., if necessary).

Egyptian Tomb Set 1 [5]



Each black tile measures as per the diagram above.

Calculate the total area of black tiles in the pattern to the left (round answer to 1 d.p., if necessary).

Problem Solving – EGYPTIAN TOMB Set

Area, circumference

<http://www.learnersgrid.com>

Egyptian Tomb Set 1 [6]



A company produced some unique-looking infographic cards to give away with product purchases.

Use the information above to calculate the total area of the three infographic cards pictured to the left (round answer to 1 d.p., if necessary).

Egyptian Tomb Set 1 [7]



A lounge in a hotel is rectangular in shape and measures 20m by 16m.

In the centre of the floor, a large rectangular area measuring 6m by 5m has been tiled for some funky dancing. The rest of the floor is carpeted.

Calculate the area of the carpet.

Problem Solving – EGYPTIAN TOMB Set

Area, circumference

<http://www.learnersgrid.com>

Egyptian Tomb Set 1 [8]



Snazzatori the clown enjoys riding his unicycle. The wheel of his unicycle has a radius of 300mm.

If Snazzatori pedals so that the wheel makes exactly 5 full rotations, how far has he travelled in...

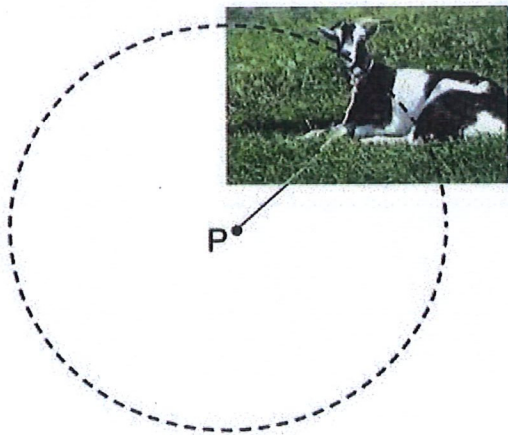
a) millimetres?

b) centimetres?

c) metres?

(Round each answer to 1 d.p., if necessary).

Egyptian Tomb Set 1 [9]



Billy the goat is tied to a stake via a chain. This means Billy grazes a circular area.

Billy's chain is 3m long. By craning his neck, Billy can reach 45cm further.

What is the total area Billy can graze (round answer to 1 d.p., if necessary)?

Problem Solving – EGYPTIAN TOMB Set

Area, circumference

<http://www.learnersgrid.com>

Egyptian Tomb Set 1 [10]



The floor of a kitchen is a perfect rectangles which measures 3m by 5m.

It has been tiled with cork tiles.

Each cork tile measures exactly 250mm by 250mm.

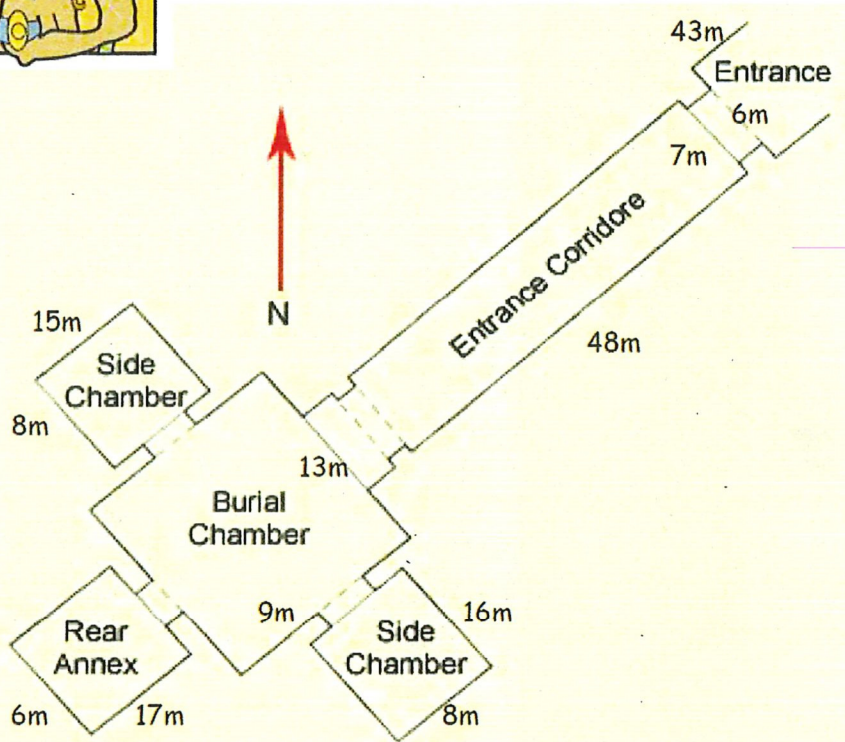
How many cork tiles – exactly - will be needed to cover the entire floor area?

ANSWERS

[1]



Egyptian Area
The Tomb of Tyti



Find the area of
The following rooms

- Side chamber 1 = 120
- Entrance = 258
- Side Chamber 2 = 128
- Rear annex = 102
- Burial chamber = 117
- Entrance Corridore = 336
- + 1061

What is the TOTAL area
of this tomb?

1061 m²

[2]



A farmer uses some fencing to
construct a square pen to hold some
sheep.

The area of the pen is 256m².

What is the length of each side of this
pen?

$$A = S^2$$

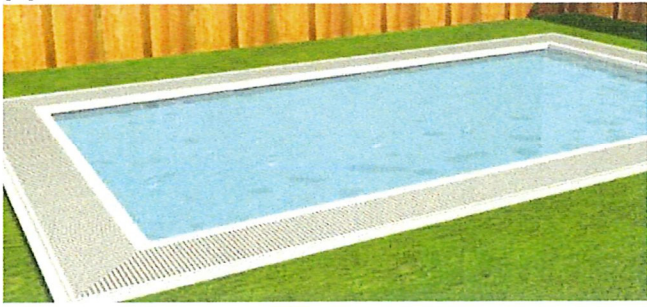
$$\sqrt{256} = \sqrt{S^2}$$

$$16 = S$$

$$S = 16m$$

SOLUTIONS

[3]

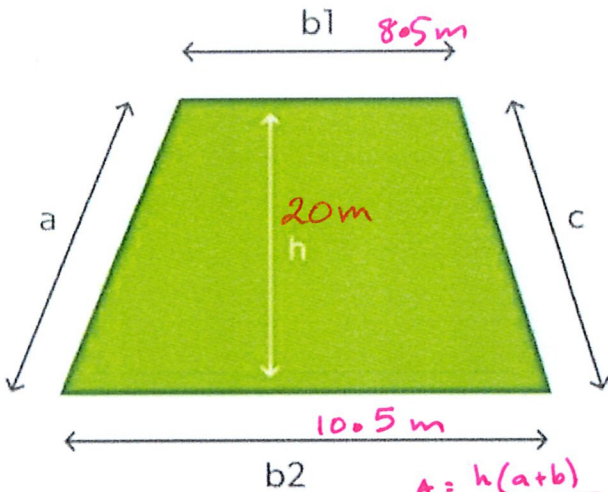


A rectangular swimming pool has an area of 800m^2 and a width of 16m .

Calculate the length of the pool.

$$\begin{aligned}
 A &= LW \\
 800 &= (L)16 \\
 \frac{800}{16} &= \frac{16L}{16} \\
 50 &= L \Rightarrow \boxed{\text{Length} = 50\text{m}}
 \end{aligned}$$

[4]



Strontium Habbernathy has a lawn which is a trapezium shape (see left).

The distance from side b_1 to side b_2 is 20m .

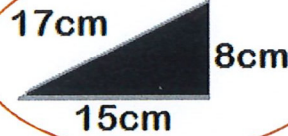
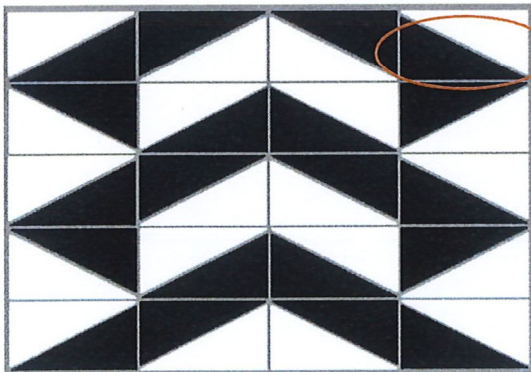
The length of the side labelled " b_1 " is 8.5m .
The length of the side labelled " b_2 " is 10.5m .

The length of the side labelled " a " is 21.2m .
The length of the side labelled " c " is 21.6m .

Give the area of Strontium's lawn (round answer to 1 d.p., if necessary).

$$\begin{aligned}
 A &= \frac{h(a+b)}{2} \\
 A &= \frac{20(8.5+10.5)}{2} \Rightarrow A = \frac{20(19)}{2} \Rightarrow A = \frac{380}{2} \Rightarrow A = \boxed{190\text{m}^2}
 \end{aligned}$$

[5]



Each black tile measures as per the diagram above.

Calculate the total area of black tiles in the pattern to the left (round answer to 1 d.p., if necessary).

$$\boxed{1,200\text{cm}^2}$$

SOLUTIONS

[6]



A company produced some unique-looking infographic cards to give away with product purchases.

Use the information above to calculate the total area of the three infographic cards pictured to the left (round answer to 1 d.p., if necessary).

424.2 cm^2

[7]



A lounge in a hotel is rectangular in shape and measures 20m by 16m.

In the centre of the floor, a large rectangular area measuring 6m by 5m has been tiled for some funky dancing. The rest of the floor is carpeted.

Calculate the area of the carpet.

290 m^2

[8]



Snazzatori the clown enjoys riding his unicycle. The wheel of his unicycle has a radius of 300mm.

If Snazzatori pedals so that the wheel makes exactly 5 full rotations, how far has he travelled in...

a) millimetres? 9424.8 mm

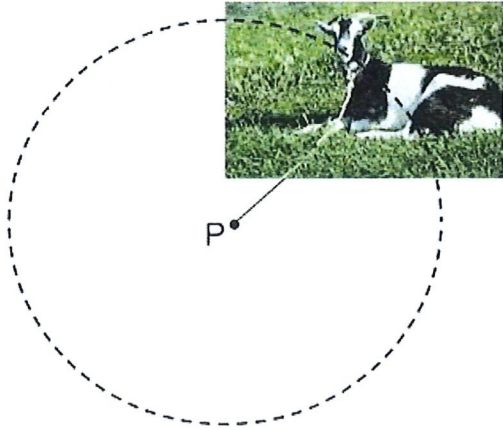
b) centimetres? 942.5 cm

c) metres? 9.4 m

(Round each answer to 1 d.p., if necessary).

SOLUTIONS

[9]



Billy the goat is tied to a stake via a chain. This means Billy grazes a circular area.

Billy's chain is 3m long. By craning his neck, Billy can reach 45cm further.

What is the total area Billy can graze (round answer to 1 d.p., if necessary)?

$$37.4 \text{ m}^2$$

[10]



The floor of a kitchen is a perfect rectangles which measures 3m by 5m.

It has been tiled with cork tiles.

Each cork tile measures exactly 250mm by 250mm.

How many cork tiles – exactly - will be needed to cover the entire floor area?

$$240 \text{ tiles}$$