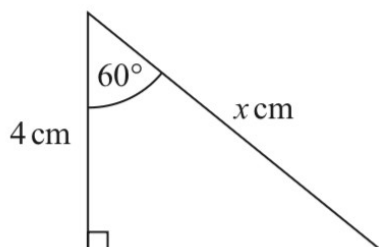


Question 1 (3 Marks)

(a) Write down the exact value of $\tan 45^\circ$

.....
(1)

Here is a right-angled triangle.



$$\cos 60^\circ = 0.5$$

(b) Work out the value of x .

.....
(2)

Question 2 (2 Marks)

Write these numbers in order of size.
Start with the smallest number.

 $0.2\dot{4}\dot{6}$ $0.24\dot{6}$ $0.\dot{2}4\dot{6}$ 0.246

Question 3 (4 Marks)

At the end of 2017

the value of Tamara's house was £220 000

the value of Rahim's house was £160 000

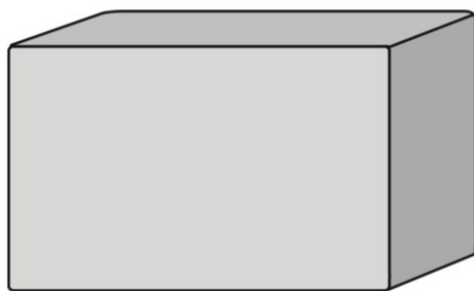
At the end of 2019

the value of Tamara's house had decreased by 20%

the value of Rahim's house had increased by 30%

At the end of 2019, whose house had the greater value?

You must show how you get your answer.

Question 4 (2 Marks)

$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

A storage tank exerts a force of 10 000 newtons on the ground.

The base of the tank in contact with the ground is a 4 m by 2 m rectangle.

Work out the pressure on the ground due to the tank.

..... newtons/m²

Question 5 (4 Marks)

A car travels for 18 minutes at an average speed of 72 km/h.

(a) How far will the car travel in these 18 minutes?

..... km
(2)

David says,

“72 kilometres per hour is faster than 20 metres per second.”

(b) Is David correct?

You must show how you get your answer.

(2)

(Total 15 Marks)