

Clive On Area

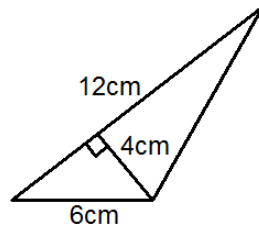
Clive is tackling his area homework and knows that he's made mistakes somewhere.

Can you spot and correct the mistakes Clive has made?

Can you explain what mistakes Clive has made, and maybe give him some tips so that he (hopefully) doesn't make them again?

Question 1:

Find the area of the triangle below:



Clive's answer:

To calculate the area of a triangle:

$$Area = \frac{1}{2}bh = \frac{1}{2} \times 12 \times 6$$

Answer:

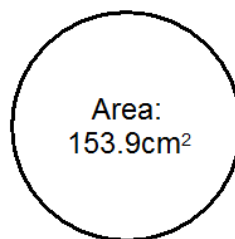
$$36cm^2$$

Your answer:

What mistake has Clive made?

Question 4:

Find the diameter of the circle below:



Clive's answer:

$$A = \pi r^2$$

$$153.9 = \pi \times r^2$$

$$r^2 = \frac{153.9}{\pi} = 49$$

Answer:

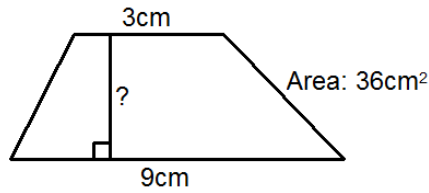
$$7cm$$

Your answer:

What mistake has Clive made?

Question 3:

Find the height of the trapezium below:



Clive's answer:

The parallel sides add to 12cm.

$$36 \div 12$$

Answer:

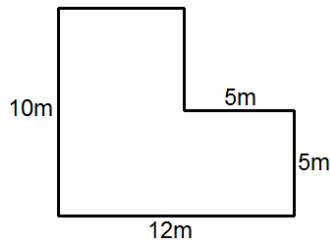
3cm

Your answer:

What mistake has Clive made?

Question 4:

The diagram below shows the plan of a playground:



It costs £7.49 per square metre to resurface the playground.

How much will it cost to resurface the whole playground?

Clive's answer:

Find the area of the playground:

$$10 \times 12 - 5 \times 7 = 85m^2$$

Cost:

$$85 \times 7.49$$

Answer:

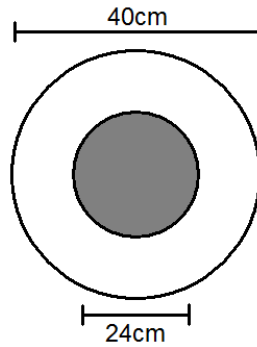
£636.65

Your answer:

What mistake has Clive made?

Question 5:

Below is a mirror made of an outer frame of wood and the mirror in the centre:



The diameter of the mirror is 24cm .

The diameter of the whole design is 40cm .

Calculate the area of wood on show to 1dp.

Clive's answer:

Your answer:

The wooden frame is 8cm across.

Area of a circle: πr^2

$$\pi \times 8^2$$

Answer:

$$201.1\text{cm}^2$$

What mistake has Clive made?