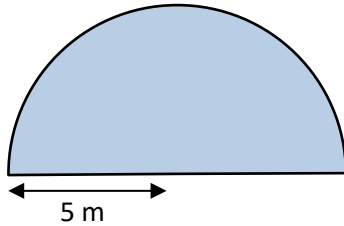




## AREA OF A SEMI-CIRCLE PROBLEMS 1B

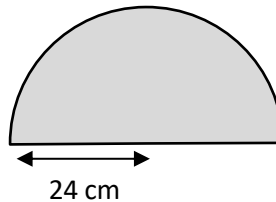
Working out

- 1) A semicircular pond has a radius of 5 m.  
What is the area of the pond to the nearest  $m^2$ ?



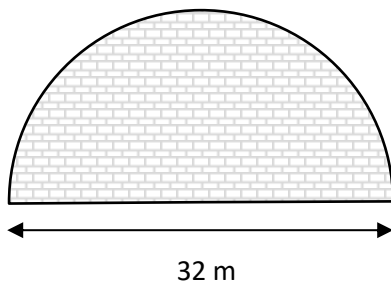
Area of the pond is \_\_\_\_\_.

- 2) A semicircular mirror has a radius of 24 cm.  
What is the area of the mirror?  
*Give your answer to 1dp*



Area of the mirror is \_\_\_\_\_.

- 3) A semicircular patio has a diameter of 32 m.  
What is the area of the patio?  
*Give your answer to the nearest square m.*



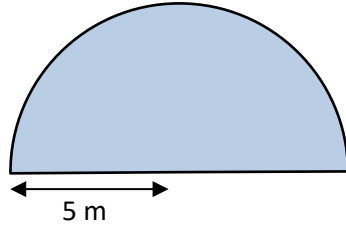
The patio has an area of \_\_\_\_\_.



## AREA OF A SEMI-CIRCLE PROBLEMS 1B ANSWERS

Working out

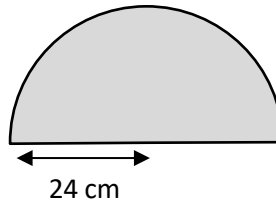
- 1) A semicircular pond has a radius of 5 m.  
What is the area of the pond to the nearest  $\text{m}^2$ ?



$$\begin{aligned} \text{Area of pond} &= (\pi r^2)/2 \\ &= (\pi \times 5^2)/2 = 25/2 \pi = \\ &= 39.3 \text{ m}^2 \end{aligned}$$

Area of the pond is **39  $\text{m}^2$** .

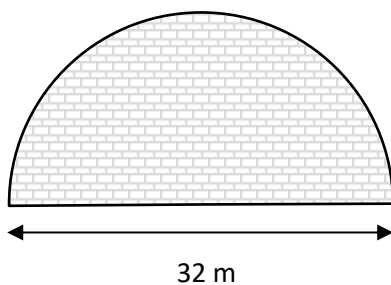
- 2) A semicircular mirror has a radius of 24 cm.  
What is the area of the mirror?  
*Give your answer to 1dp*



$$\begin{aligned} \text{Area of mirror} &= (\pi r^2)/2 \\ &= (\pi \times 24^2)/2 = 288\pi = \\ &= 904.8\text{cm}^2 \end{aligned}$$

Area of the mirror is **157.1  $\text{in}^2$**

- 3) A semicircular patio has a diameter of 32 m.  
What is the area of the patio?  
*Give your answer to the nearest square m.*



$$\begin{aligned} \text{Radius of patio} &= 32/2 \\ &= 16 \text{ m.} \\ \text{Area of patio} &= (\pi r^2)/2 \\ &= (\pi \times 16^2)/2 = 128\pi = \\ &= 402.1 \text{ m}^2 \end{aligned}$$

The patio has an area of **402  $\text{m}^2$** .