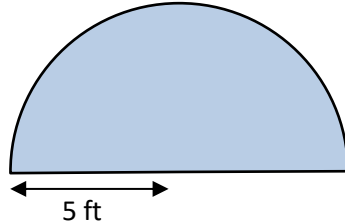




AREA OF A SEMI-CIRCLE PROBLEMS 1A

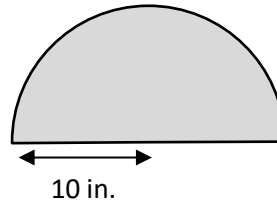
Working out

- 1) A semicircular pond has a radius of 5 ft.
What is the area of the pond to the nearest square foot?



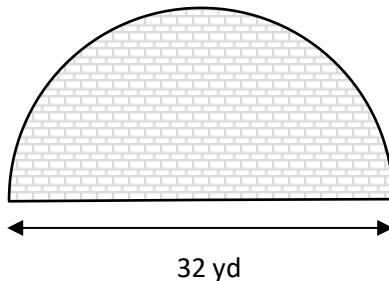
Area of the pond is _____.

- 2) A semicircular mirror has a radius of 10 inches.
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 yards.
What is the area of the patio?
Give your answer to the nearest square yard.



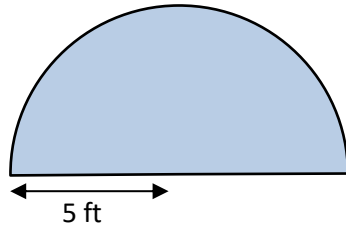
The patio has an area of _____.



AREA OF A SEMI-CIRCLE PROBLEMS 1A ANSWERS

Working out

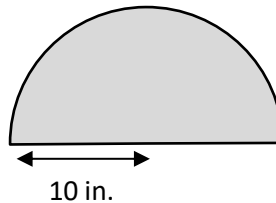
- 1) A semicircular pond has a radius of 5 ft.
What is the area of the pond to the nearest square foot?



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

Area of the pond is 39 ft².

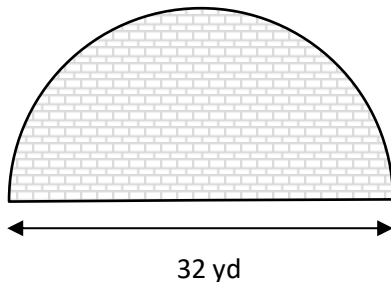
- 2) A semicircular mirror has a radius of 10 inches.
What is the area of the mirror?
Give your answer to 1dp



$$\begin{aligned} \text{Area of mirror} &= (\pi r^2)/2 \\ &= (\pi \times 10^2)/2 = 50\pi = \\ &= 157.1 \text{ in}^2 \end{aligned}$$

Area of the mirror is 157.1 in²

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



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

The patio has an area of 402 square yards.