

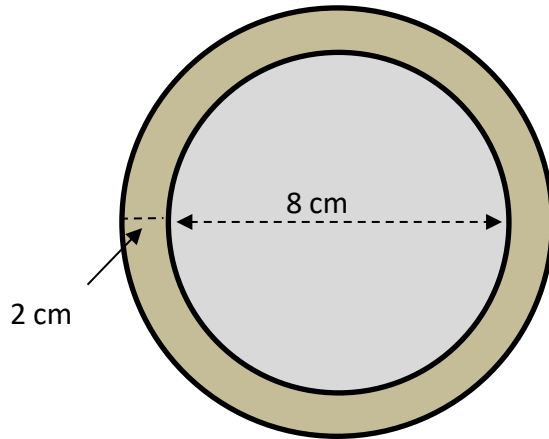


AREA OF A CIRCLE WORD PROBLEMS 3B

Work out these area word problems giving your answers to 1 decimal place.

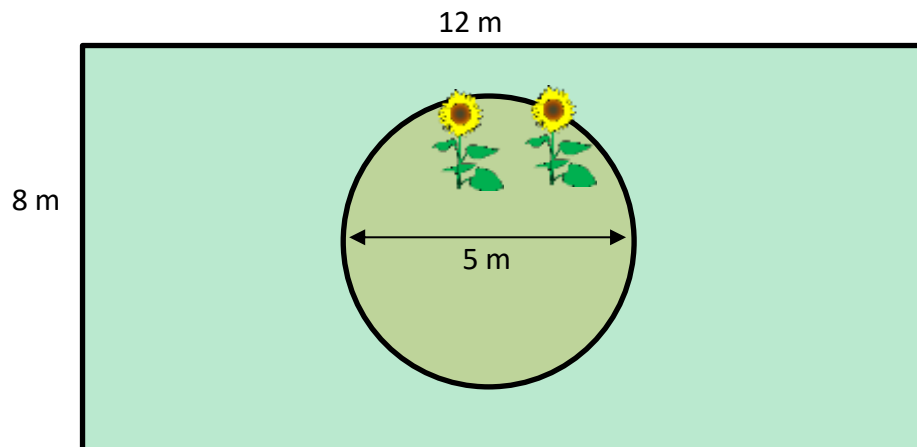
Working out

- 1) A small circular mirror has a 2 cm frame around it. The mirror itself is 8 cm in diameter. What is the area of the frame?



The area of the frame is _____.

- 2) A circular flower bed 5m in diameter is created in the middle of a rectangular lawn area measuring 15m by 8m. What is the area of the lawn that is left?



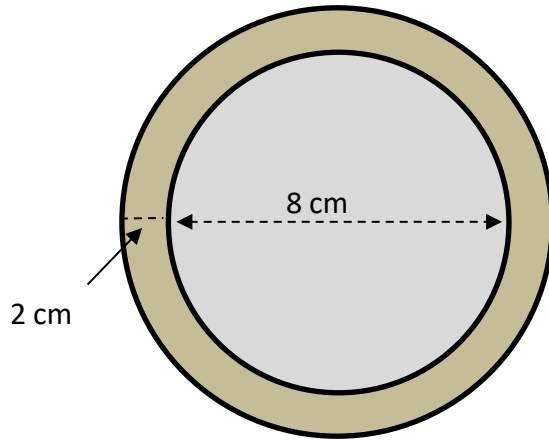
The area of lawn is _____.



AREA OF A CIRCLE WORD PROBLEMS 3B ANSWERS

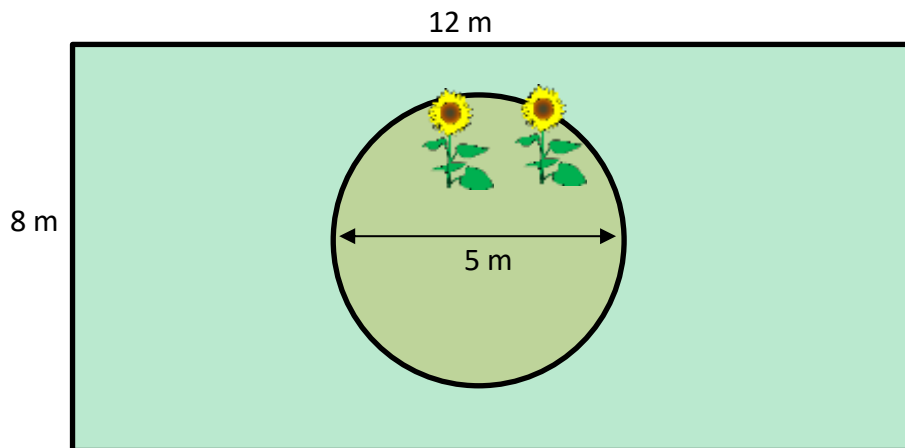
Work out these area word problems giving your answers to 1 decimal place.

- 1) A small circular mirror has a 2 cm frame around it. The mirror itself is 8 cm in diameter. What is the area of the frame?



The area of the frame is **28.3 cm²**

- 2) A circular flower bed 5m in diameter is created in the middle of a rectangular lawn area measuring 15m by 8m. What is the area of the lawn that is left?



The area of lawn is **76.4 m²**.

Working out

$$\text{Radius of mirror} = 8 \div 2 = 4 \text{ cm}$$

$$\text{Area of mirror is } \pi r^2 \text{ which is } \pi \times 4^2 = 16\pi.$$

$$\text{Radius of mirror and frame} = 10 \div 2 = 5 \text{ cm}$$

$$\text{Area of mirror and frame} = \pi \times 5^2 = 25\pi.$$

$$\text{Area of frame} = \text{area of mirror and frame} - \text{area of mirror.}$$

$$\text{Area of frame} = 25\pi - 16\pi = 9\pi = 28.3 \text{ cm}^2$$

$$\text{Area of lawn and flower bed} = 12 \times 8 = 96 \text{ m}^2.$$

$$\text{Radius of bed} = 5 \div 2 = 2.5 \text{ m.}$$

$$\text{Area of flower bed} = \pi r^2 = \pi \times 2.5^2 = 19.6 \text{ m}^2.$$

$$\text{Area of lawn} = \text{area of lawn and bed} - \text{area of bed}$$

$$= 96 - 19.6 = 76.4 \text{ m}^2.$$