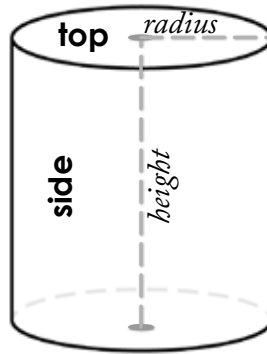


Name: _____

Surface Area of a Cylinder



$$\pi = 3.14$$

$$\text{area of top} = \pi r^2$$

$$\text{area of bottom} = \pi r^2$$

$$\text{area of top + bottom} = 2\pi r^2$$

$$\text{area of side} = \text{circumference} \times \text{height}$$

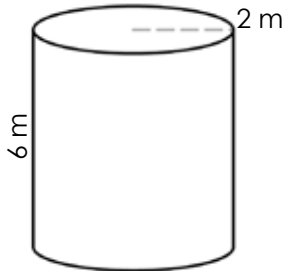
$$\text{circumference} = 2\pi r$$

$$\text{area of side} = 2\pi r h$$

$$\text{Surface Area} = 2\pi r^2 + 2\pi r h$$

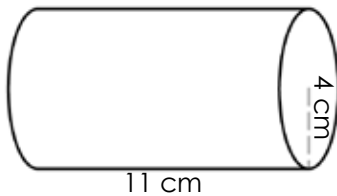
Calculate the *Surface Area (S.A.)* for each cylinder by using the formula $S.A. = 2\pi r^2 + 2\pi r h$. Use 3.14 for π .

a.



a. _____

b.



b. _____

c.

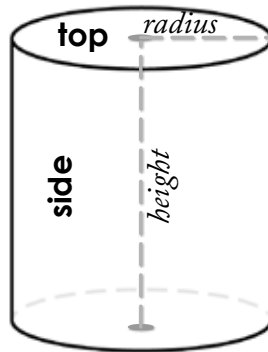
$$\text{radius} = 12 \text{ mm}$$

$$\text{height} = 3 \text{ mm}$$

c. _____

ANSWER KEY

Surface Area of a Cylinder



$$\pi = 3.14$$

$$\text{area of top} = \pi r^2$$

$$\text{area of bottom} = \pi r^2$$

$$\text{area of top + bottom} = 2\pi r^2$$

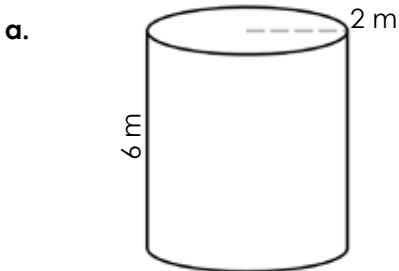
$$\text{area of side} = \text{circumference} \times \text{height}$$

$$\text{circumference} = 2\pi r$$

$$\text{area of side} = 2\pi r h$$

$$\text{Surface Area} = 2\pi r^2 + 2\pi r h$$

Calculate the *Surface Area* (*S.A.*) for each cylinder by using the formula $S.A. = 2\pi r^2 + 2\pi r h$. Use 3.14 for π .

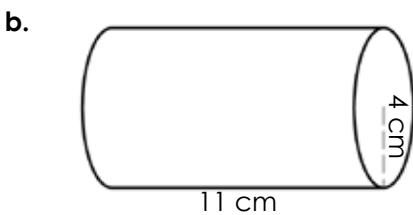


$$S.A. = 2\pi r^2 + 2\pi r h$$

$$S.A. = 2(3.14 \times 2^2) + 2(3.14 \times 2 \times 6) \quad \text{a.} \quad \underline{S.A. = 100.48 \text{ m}^2}$$

$$S.A. = 25.12 + 75.36$$

$$S.A. = 100.48 \text{ m}^2$$



$$S.A. = 2\pi r^2 + 2\pi r h$$

$$S.A. = 2(3.14 \times 4^2) + 2(3.14 \times 4 \times 11) \quad \text{b.} \quad \underline{S.A. = 376.8 \text{ cm}^2}$$

$$S.A. = 100.48 + 276.32$$

$$S.A. = 376.8 \text{ cm}^2$$

c. $\text{radius} = 12 \text{ mm}$
 $\text{height} = 3 \text{ mm}$

$$S.A. = 2\pi r^2 + 2\pi r h$$

$$S.A. = 2(3.14 \times 12^2) + 2(3.14 \times 12 \times 3) \quad \text{c.} \quad \underline{S.A. = 1,130.4 \text{ mm}^2}$$

$$S.A. = 904.32 + 226.08$$

$$S.A. = 1,130.4 \text{ mm}^2$$