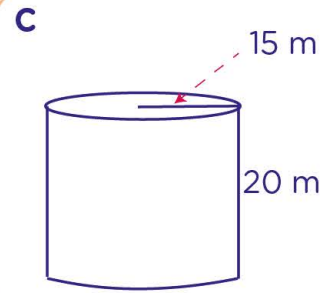
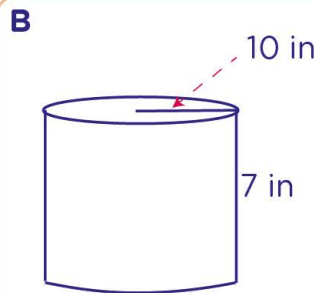
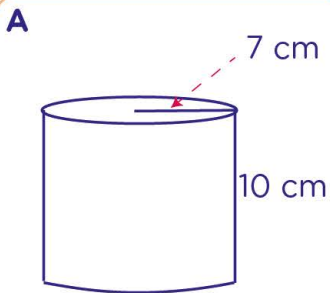


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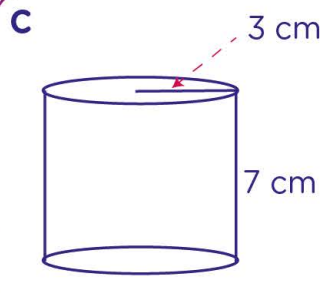
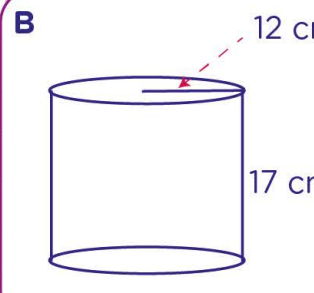
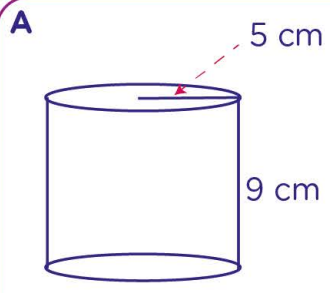
Volume and surface area of cylinders.

Find the volume of this cylinder. Use 3.14 for π . Round your answer to the nearest hundredth.

Formula for volume of cylinder = area x height



Find the surface area of this cylinder. Use 3.14 for π .

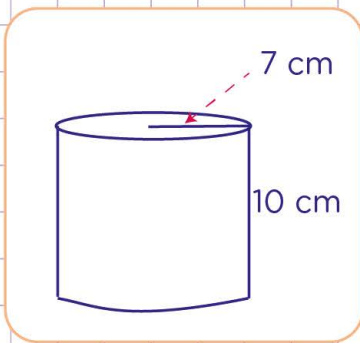


Name: Class:

Volume and surface area of cylinders.

Find the volume of this cylinder. Use 3.14 for π . Round your answer to the nearest hundredth.

Formula for volume of cylinder = area x height

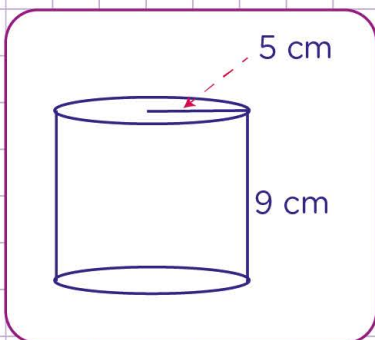


$$\begin{aligned} \text{Area of circle} &= \pi r^2 \\ r &= 7 \text{ cm and } \pi = 3.14 \\ \text{Area} &= 3.14 \times 7 \text{ cm} \times 7 \text{ cm} \\ &= 153.86 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} \text{Volume of cylinder} &= \text{area} \times \text{height} \\ \text{Area} &= 153.86 \text{ cm}^2 \\ \text{Height} &= 10 \text{ cm} \\ \text{Volume} &= 153.86 \text{ cm}^2 \times 10 \text{ cm} \\ &= 1538.6 \text{ cm}^3 \end{aligned}$$

So, the volume of the cylinder is 1538.6 cubic centimeters.

Find the surface area of this cylinder. Use 3.14 for π .



$$\begin{aligned} \text{Area of circle} &= \pi r^2 \\ \text{Since the 2 circles have the same radius, the area will be 2 times more.} \\ \text{So area of our cylinder will be} &= (2 \times (\pi r^2)). \\ r &= 5 \text{ cm and } \pi = 3.14 \\ \text{Area} &= (2 (3.14 \times 5 \text{ cm} \times 5 \text{ cm})) \\ \text{Area} &= 157 \text{ cm}^2 \end{aligned}$$

So, the surface area of the cylinder is 157 square centimeters.