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.
Volume and surface area of cylinders.

Find the volume of this cylinder. Use 3.14 for \( \pi \). Round your answer to the nearest hundredth.

Formula for volume of cylinder = area \( \times \) height

\[
\text{Area of circle} = \pi r^2
\]
\[
r = 5 \text{ cm, and } \pi = 3.14
\]
\[
\text{Area} = 3.14 \times 5 \text{ cm} \times 5 \text{ cm}
\]
\[
= 78.5 \text{ cm}^2
\]
\[
\text{Volume of cylinder} = \text{area} \times \text{height}
\]
\[
\text{Height} = 10 \text{ cm}
\]
\[
\text{Volume} = 78.5 \text{ cm}^2 \times 10 \text{ cm}
\]
\[
= 785 \text{ cm}^3
\]

So the volume of the cylinder is 785 cubic centimeters.

Find the surface area of this cylinder. Use 3.14 for \( \pi \).

\[
\text{Area of circle} = \pi r^2
\]
Since the 2 circles have the same radius, the area will be 2 times more

So area of our cylinder will be \((2 \times (\pi r^2))\)

\[
r = 3 \text{ cm, and } \pi = 3.14
\]
\[
\text{Area} = (2 \times (3.14 \times 3 \text{ cm} \times 3 \text{ cm}))
\]
\[
= 56.52 \text{ cm}^2
\]

So the surface area of the cylinder is 56.52 square centimeters.