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## 11.3 - Surface Area of Cylinders \& Cones

Find ONLY THE LATERAL AREA of each cylinder to the nearest 0.1.
1)

2)

3) what is the surface area of the solid shown at the right?


Find the surface area of each cylinder in terms of $\pi$.
4)

5)

6) a) A cylindrical container of paint with radius 6 in. is 15 in . tall. If all of the surfaces except the top are made of metal, how much metal is used to make the container? Assume the thickness of the metal is negligible. Show your answer to the nearest square inch.
b) If the top of the paint container is made of plastic, how much plastic is used to make the top? Assume the thickness of the plastic is negligible. Show your answer to the nearest square inch.
7) a) Suppose that a cylinder has a radius of $r$ units and a height of $2 r$ units. The lateral area of the cylinder is $64 \pi$ square units. What is the value of $r$ ?
b) What is the surface area of the cylinder? Round your answer to the nearest 0.1 .
8) Draw a cylinder and its dimensions with a surface area of $136 \pi \mathrm{~cm}^{2}$.

Find the surface area of each cone in terms of $\pi$.

10)


