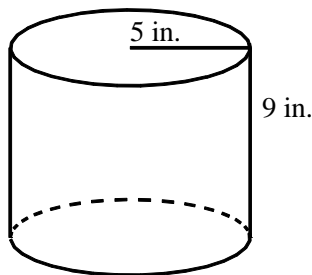


P.I. G.G.14: Apply the properties of a cylinder, including: bases are congruent, volume equals the product of the area of the base and the altitude, and lateral area of a right circular cylinder equals the product of an altitude and the circumference of the base

1. Find the volume of the cylinder. (not drawn to scale)



- [A] $54\pi \text{ in.}^3$ [B] $225\pi \text{ in.}^2$
 [C] $45\pi \text{ in.}^3$ [D] $225\pi \text{ in.}^3$

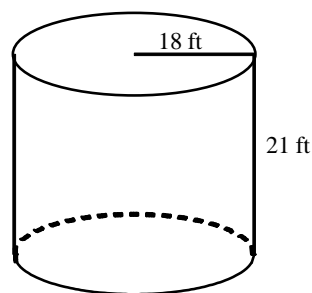
2. Cylinder A has radius 1 and height 4 and cylinder B has radius 2 and height 4. The ratio of the volumes of the two cylinders is

- [A] 1:4 [B] 1:2 [C] 1:1
 [D] 5:6 [E] cannot be determined

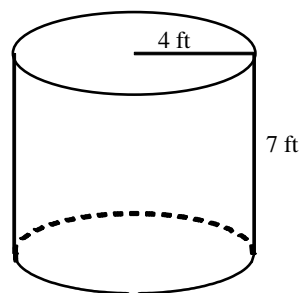
3. What is the volume of a can of soup that has a height of 16 cm and a diameter of 8 cm?

4. The formula for the volume of a cylinder is $V = \pi r^2 h$. Write an expression for the volume of a cylinder in which $r = 6x^4$. Use 3.14 for π .

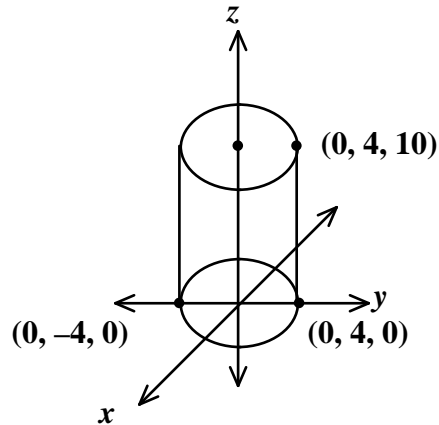
5. Find the volume of the cylinder. Use 3.14 for π .



6. Find the volume of the cylinder. Use 3.14 for π .



7. Find the volume of the cylinder shown. Leave your answer in terms of π .



8. Compare the quantity in Column A with the quantity in Column B.

Column A

the lateral area of a cylinder

with $r = 6$ and $h = 4$

Column B

the lateral area of a cylinder

with $r = 4$ and $h = 9$

[A] The quantity in Column A is greater.

[B] The quantity in Column B is greater.

[C] The two quantities are equal.

[D] The relationship cannot be determined on the basis of the information supplied.

Geometry Practice: G.G.14

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[1] D

[2] A

[3] 803.84 cm³

[4] 113.04 x^8h

[5] 21,364.56 ft³

[6] 351.68 ft³

[7] 160 π cu units

[8] B