

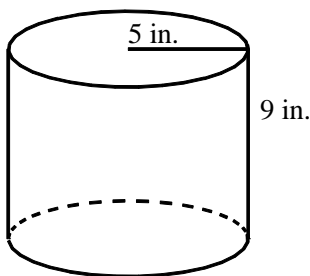
NAME: \_\_\_\_\_

*P.I. A.G.2: Use formulas to calculate volume of cylinders*

*P.I. G.G.14: Apply the properties of a cylinder, including volume equals the product of the base and the altitude*

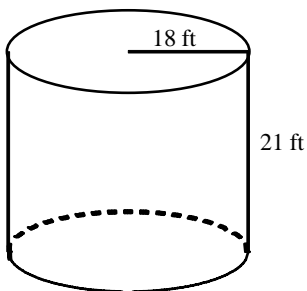
- The formula for the volume of a cylinder is  $V = \pi r^2 h$ . Write an expression for the volume of a cylinder in which  $r = 6x^4$ . Use 3.14 for  $\pi$ .

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

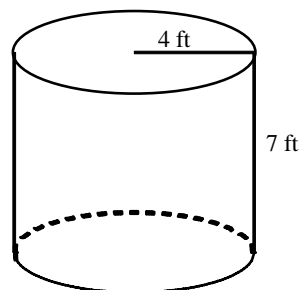


- [A]  $54\pi \text{ in.}^3$       [B]  $225\pi \text{ in.}^2$   
[C]  $45\pi \text{ in.}^3$       [D]  $225\pi \text{ in.}^3$

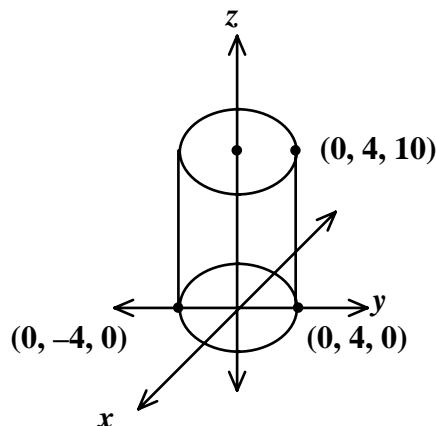
- Find the volume of the cylinder. Use 3.14 for  $\pi$ .



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- Find the volume of the cylinder shown. Leave your answer in terms of  $\pi$ .



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

[1]  $113.04x^8h$

[2] D

[3]  $21,364.56 \text{ ft}^3$

[4]  $351.68 \text{ ft}^3$

[5]  $160\pi$  cu units

[6]  $803.84 \text{ cm}^3$

[7] A