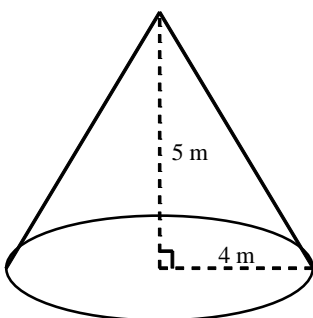


NAME: _____

P.I. G.G.15: Apply the properties of a right circular cone, including volume is one-third the product of the area of its base and its altitude

1. Find the volume of the cone.



- [A] 16.76 m^3 [B] 83.78 m^3
[C] 26.67 m^3 [D] 251.33 m^3

2. Find the volume of the cone that has a diameter of 8 feet and a height of 15 feet. (Use 3.14 for π .)

- [A] 251.2 ft^3 [B] 753.6 ft^3
[C] 1004.8 ft^3 [D] 376.8 ft^3

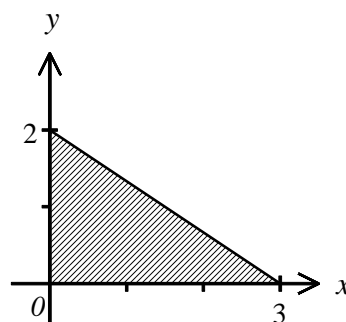
3. Find the volume of the cone that has a diameter of 14 feet and a height of 22 feet. (Use 3.14 for π .)

- [A] 3384.92 ft^3 [B] 1128.31 ft^3
[C] 4513.23 ft^3 [D] 967.12 ft^3

4. Calculate the volume of a cone with height 9 feet and radius 5 feet.

5. Calculate the volume of a cone with height 6 feet and radius 4 feet.

6. Find the difference in the volumes of the cones created by rotating the triangle shown below around the x -axis and around the y -axis. Write your answer in terms of π .



7. An hourglass, composed of two cones, is 12 cm tall. The radius of each cone is 3 cm. If you want to fill the bottom half of the hourglass $\frac{2}{3}$ full of salt, how much salt will you need?

[1] B

[2] A

[3] B

[4] 235.62 ft³

[5] 100.53 ft³

[6] 2π cu units

[7] 37.68 cm³