



Name _____ Period _____ Date _____

Volume Review #2 (page 1)

Write the formulas for the volume for each shape below:

1. Cylinder _____ Cone _____ Sphere _____

2. Describe the relationship between a cone and a cylinder (both having the same height and radius).

3. Find the volume of a cylinder whose height is 10 cm and the diameter of its base is 6 cm. Leave your answer in terms of pi.

3-D volume drawing:

Volume Formula:

Work:

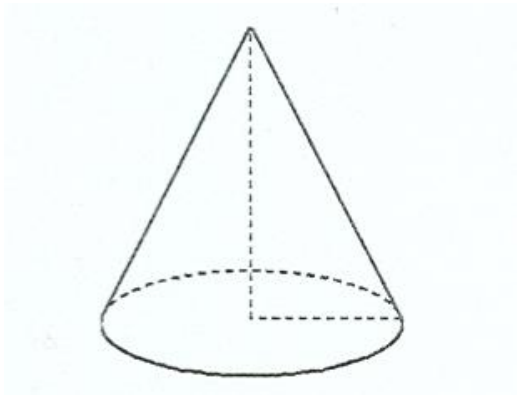
Answer:

4. The height of the cylinder above is 10 cm. A student states that doubling the height of the cylinder will double the volume of the original cylinder. Show or explain why the student is or is not correct.

Volume Review #2 (page 2)

5. If the *slant* height of a right circular cone is 10 cm and the diameter of its base is 16 cm, what is its volume? Give your answer in terms of π .

What formula do you need to find the height of the cone? _____



Work:

Height of cone: _____

Formula for volume of a cone:

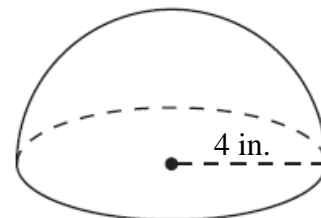
Work:

Answer:

-
6. A bake shop makes a cake shaped like a hemisphere, as pictured.

What volume formula should you use?

What do you have to do to the answer once you find the volume?



cake

What is the volume, in cubic inches, of the cake? Leave your answers written in terms of π . Show your work below.