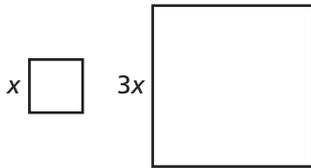


GRADE
10**Focus on Sunshine State Standards: Benchmark Tests**
MA.912.G.7.6 Benchmark Pre-Test (Multiple Choice)

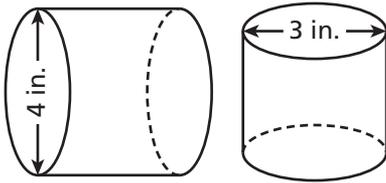
- Two cylinders have congruent circular bases. The cylinders are congruent. What is the ratio of their heights?
 - equal to 1
 - less than 1
 - greater than 1
 - greater than or equal to 1
- The ratio of the diameters of two spheres is 1 : 1. Which term describes these spheres?
 - similar and congruent
 - similar, but not congruent
 - congruent, but not similar
 - neither similar nor congruent
- Which statement is true of the corresponding edges of two congruent solids?
 - They have a common vertex.
 - Their ratio is greater than 1.
 - Their ratio is less than 1.
 - They are congruent.
- The volume of a cube is 5 cubic inches. If the edges are doubled, what is the new volume?
 - 8 cubic inches
 - 20 cubic inches
 - 40 cubic inches
 - 125 cubic inches
- The ratio of the surface areas of two cones is 25 : 9. What is the ratio of their diameters?
 - 125 : 27
 - 5 : 3
 - 3 : 5
 - 9 : 25
- The figures shown represent the faces of two cubes. If Matt knows the volume of the cube on the left how can he get the volume of the cube on the right?
 - Multiply the volume by 3.
 - Multiply the volume by 9.
 - Multiply the volume by 27.
 - Cube the volume.
- Two cylinders are similar. Their lateral areas are 196π and 324π square feet. If the volume of the smaller cylinder is 686π cubic feet, what is the volume of the larger cylinder?
 - 814π cubic feet
 - 882π cubic feet
 - $1,134\pi$ cubic feet
 - $1,458\pi$ cubic feet

GRADE 10 **Focus on Sunshine State Standards: Benchmark Tests**
MA.912.G.7.6 Benchmark Pre-Test (Gridded Response)

Use the Gridded Response Answer Sheet.

8. How many cubic feet are there in 1 cubic yard?

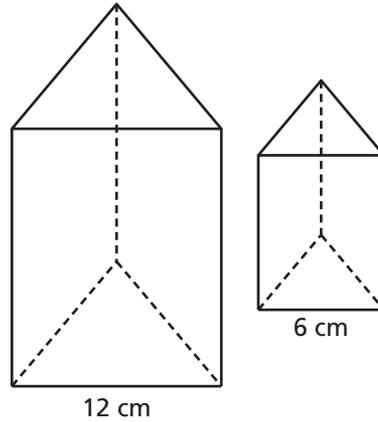
9. The cylinders below have the same height. What is the ratio of the volume of the larger cylinder to the smaller? Write your answer as a decimal rounded to two places.



10. Rebecca's old rectangular suitcase is 12 inches wide, 20 inches long, and 6 inches tall. Her new suitcase has dimensions that are double her old one. By how many times did the volume of her suitcase increase when she bought the new one?

11. A glass paperweight shaped like a pyramid has a volume of 4 cubic centimeters. How many cubic centimeters are there in the volume of a similarly shaped paperweight if each dimension is three times as large as the smaller paperweight?

12. The volume of the larger prism below is 480 cubic centimeters. How many cubic centimeters are there in the volume of the smaller prism?



13. The top part of the square pyramid shown below has a height that is $\frac{1}{2}$ the total height. If the height of the top part of the pyramid is 8 meters, what is the volume of the shaded part in cubic meters? Round to the nearest tenth.

