

Ottocento Lesson #10 Area & Volume Scale Factors Worksheet

Video Solutions at: https://youtu.be/CaXK7_k3gQU

Question 1

Rectangle A and Rectangle B are similar. Rectangle B has a side length that is 8 times the corresponding side length of Rectangle A. The area of Rectangle A is 32. What is the area of Rectangle B?

Question 2

Trapezoid A and Trapezoid B are similar. Trapezoid B has an area that is 81 times the area of Trapezoid A. The height of Trapezoid B is 36. What is the height of Trapezoid A?

Question 3

Cone A and Cone B are similar. Cone A has a radius that is 11 times the radius of Cone B. The volume of Cone A is 6655. What is the volume of Cone B?

Question 4

Pyramid A and Pyramid B are similar. Pyramid A has a volume that is 343 times the volume of Pyramid B. The height of Pyramid B is 12. What is the height of Pyramid A?

Question 5

Shawn has two sugar cubes each in the shape of a cube (shocking!). Cube B has a surface area that is 4 times the surface area of Cube A. The volume of Cube B is 104. What is the volume of Cube A?

Question 6

SpongeBob draws two perfect circles (much to Squidward's dismay). Circle B has a circumference that is 3.75 times the circumference of Circle A. Circle A has an area of 40. What is the area of Circle B?



Question 7

	Area (square inches)
Parallelogram A	7
Parallelogram B	2268

Parallelogram A and Parallelogram B are similar. The table gives the areas, in square inches, of the two parallelograms. One side for Parallelogram B measures 75 inches. What is the length of the corresponding side for Parallelogram A, in inches?

Question 8

	Volume (cubic inches)
Cylinder A	1620
Cylinder B	7.5

Cylinder A and Cylinder B are similar. The table gives the volumes, in cubic inches, of the two cylinders. The height of Cylinder B is 25 inches. What is the height of Cylinder A, in inches?



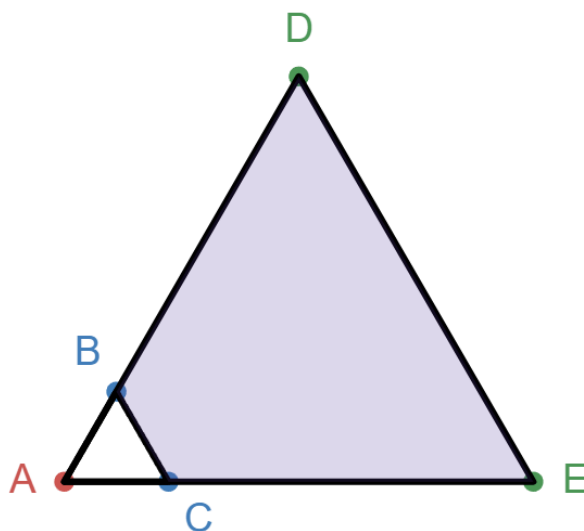
Question 9

	Width (inches)
Rectangle A	135
Rectangle B	15

Rectangle A and Rectangle B are similar. The table gives the widths, in inches, of the two rectangles. The area of Rectangle A is 145.8 square inches. What is the positive difference between the areas of the two rectangles, in square inches?



Question 10



In the figure shown, Triangle ABC and Triangle ADE are both equilateral triangles. The ratio of AC to CE is 2 to 7. If the area of Triangle ADE is 162, what is the area of the shaded region?