

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Class: \_\_\_\_\_

Geometry  
Review

Density Questions:

1) 30,000 bacteria are living in an isosceles triangle that has a base 10mm and a leg of 14mm. What is the density of these bacteria?

- 1) 428.6      2) 459.0      3) .0023      4) .0022

2) A cube has density 2.5 grams per cubic centimeter. If the cube weighs 1822.5 grams, what would the surface area of the cube be?

3) Which has a greater density, a cube that weighs 468kg that has a face with area 73 square inches or a cylinder that weighs 369kg with height 9.5 inches and radius .35ft?

4) If 20,000 bacteria lived inside of the following shapes, which would result in a higher density?

Shape 1 – A circle that fits perfectly inside a square, and the square has area of 36 square mm.

Shape 2 – A square that is inscribed in a circle, and the circle has area of 36 square mm.

5) A cylinder and a cube are made of different materials. The cylinder has a mass of 500kg and the cube has a mass of 400kg. The cylinder has a radius of 5.03in and the height of the cylinder is equal to the diameter of the cylinder. On the cube each face has an area of 74.8225 square inches. Which figure has a greater density?

6) If 200,500 bacteria are living in a shape that is an equilateral triangle with perimeter 26cm, what would the population density be?

7) If a cylinder has a diameter of 10ft and height that is 2.5 times the radius, what would the density of this cylinder be if it has a mass of 1500kg?

8) A rectangular prism has height of 5m, width of 7m, and length of 10m. The prism has a mass of 500kg. If the height is increased to 6m, all other measurements remain the same (including the mass), by what percent has the density changed from the original?