Geometry District Assessment 12 Review Name_____

(Links to State Standards GE 9.0, GE 8.0 and GE11.0) Date_____Period _____
(Use after section 12.7)

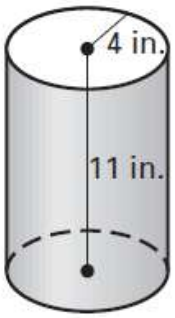
GE 9.0 Students compute the volumes and surface areas of prisms, pyramids, cylinders, cones, and spheres; and students commit to memory the formulas for prisms, pyramids, and cylinders. AND

GE 8.0* Students know, derive, and solve problems involving perimeter, circumference, area, [volume, lateral area, and surface area] **of common geometric figures.** AND

GE 11.0 Students determine how changes in dimensions affect the [perimeter], area, and volume of common geometric figures and solids.

Show your work. Circle your answers.

For questions 1 and 2, refer to the cylinder shown here:

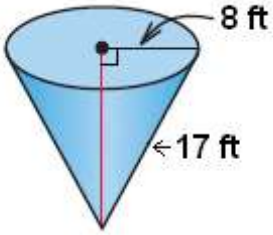


1. Calculate the volume of the cylinder.

2. What is total surface area of the cylinder?

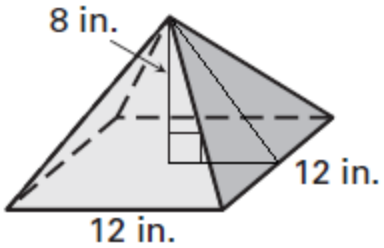
GE 9.0

3. Given that the formula for finding the volume of a cone is $V = \frac{1}{3}\pi r^2 h$, calculate the volume of the cone shown.



GE 9.0

For questions 4 and 5, refer to the pyramid shown here:

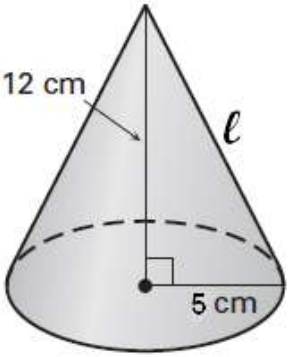


4. Calculate the volume of the pyramid.

5. What is total surface area of the pyramid?

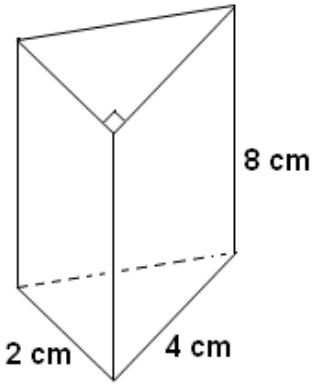
GE 9.0

6. The cone shown has a height of 12 cm. What is the lateral Area of the cone? (Lateral area of a cone $= \pi r l$, where l = slant height)



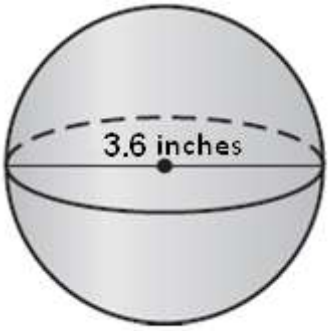
GE 9.0

7. The figure shown is a right prism with a triangular base. Calculate the volume of the prism.



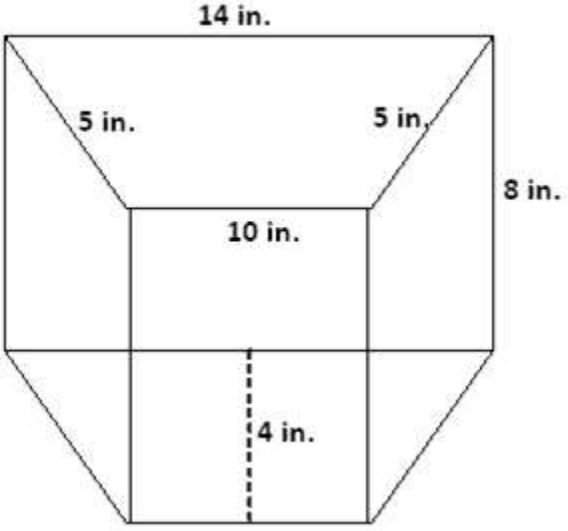
GE 9.0

8. A basketball has a diameter of approximately 3.6 in. What is the volume of the basketball, given the formula: $V_{sphere} = \frac{4}{3}\pi r^3$? Round to the nearest cubic inch.



GE 8.0

9. A cabinet has been designed to fit in a corner. The shape of the cabinet is a right prism with a trapezoidal base, as shown. What is the lateral surface area of the cabinet?



GE 8.0

10. A box in the shape of a right prism with a square base has a volume of 24 cubic inches. If the length, width and height were all doubled, what would be the volume of the new box?

GE 11.0