Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Test review volume, surface area, change in dimensions**

1. A person is painting the following box below. What would be the surface area if the entire box was painted?



2. A company is making a new type of cylindrical can that will be used to store lubrication oil. How much oil will the new can

hold? **Use π = 3**

2 in



8 in

3. A company is making a wedge shown below, how many cubic centimeters of material will be needed?



5 cm

4 cm

4. A company is making the following object below. If the company wants to put a label on the curved parts of the object only, What would be the surface area of the label***?*** **Use π = 3.14**

3 in



7 in

5. Two similar cylinders are shown. Find the volume of the smaller prism.



V= ? cm V= 32 cm

6. A company has to paint the entire surface of the following object. How much paint would the company need? **Use π = 3**



7. What would be the lateral and total surface area of the object?



8. Two similar cylinders are shown. Find the surface of the bigger prism.



4 in

9. A company is making the following shape for a customer, the customer needs to know what the surface area is of the object. What is the surface area of the object?



4 yd

9 yd

6 yd

10. Given the following dimensions of the object below, what is the volume of the shape? **Use π = **



7 ft

5 ft

11. What is the volume of the following object given the radius is 6 cm? Solve for in terms of π.



5 ft

12. A company is building a monument in front of their office building. The company needs to know the volume of the object because of building codes. What is the volume of the given shape below?



6 yd

Answers to the following questions are found here. ***If your answers is not here, then you did not do the problem correctly.*** Your answers should be here exactly as shown(except #11). They are mixed up so you will have to find it.

360 420 168 4 432 80 96 256.6 504 131.88 144 100 40