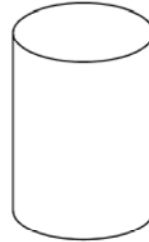


Build a Cylinder

11.02

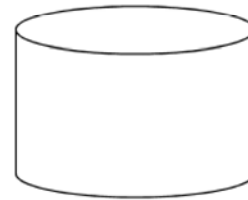
Use an  $8\frac{1}{2}$ " by 11" piece of paper to form a cylinder. A cylinder is very similar to a prism, except that the bases are circles instead of polygons. To complete your cylinder, cut out circles for the bases and connect them. Find the following:

1. Area of the base: \_\_\_\_\_
2. Lateral area: \_\_\_\_\_  
(remember: lateral area is the area around the sides)
3. Volume: \_\_\_\_\_
4. Surface area: \_\_\_\_\_



Now, using another  $8\frac{1}{2}$ " by 11" piece of paper, form a cylinder with a different height. Find the following:

5. Area of the base: \_\_\_\_\_
6. Lateral area: \_\_\_\_\_
7. Volume: \_\_\_\_\_
8. Surface area: \_\_\_\_\_



Now compare your two cylinders.

9. Which cylinder has the most volume? \_\_\_\_\_
10. How do the lateral areas compare? \_\_\_\_\_
11. Which cylinder has the largest surface area? \_\_\_\_\_

Scrambled answers: 9.6, 63, 82, 5.7, 93.5, 113, 105