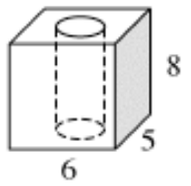
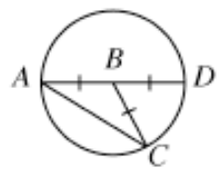
Review & Preview

10-6. A rectangular prism has a cylindrical hole removed, as shown at right. If the radius of the cylindrical hole is 2 inches, find the volume and total surface area of the solid.



10-7. In the diagram below, $\overline{AD}$ is a diameter of $\odot B$.

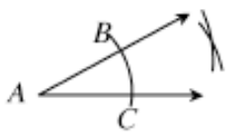


a. If $m\angle A = 35°$, what is $m\angle CBD$?

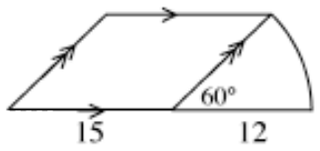
b. If $m\angle CBD = 100°$, what is $m\angle A$?

c. If $m\angle A = x$, what is $m\angle CBD$?

10-8. Lavinia started a construction at right. Explain what she is constructing. Then copy her diagram and finish her construction.



10-9. A sector is attached to the side of a parallelogram, as shown in the diagram at right. Find the area and perimeter of the figure.



10-10. On the same set of axes, graph both equations listed below. Then name all points of intersection in the form (x, y). How many times do the graphs intersect?

$$y = 4x - 7$$
$$y = x^2 - 2x + 2$$

10-11. **Multiple Choice:** Dillon starts to randomly select cards out of a normal deck of 52 playing cards. After selecting a card, he does not return it to the deck. So far, he has selected a 3 of clubs, an ace of spades, a 4 of clubs, and a 10 of diamonds. Find the probability that his fifth card is an ace.

a. $\frac{1}{16}$ b. $\frac{3}{52}$ c. $\frac{1}{13}$ d. $\frac{1}{52}$