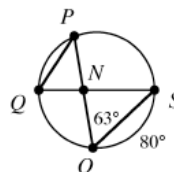


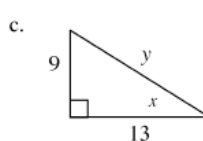
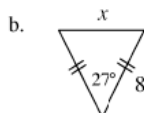
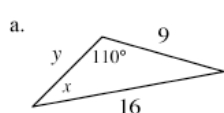
Review & Preview

10-38. If \overline{QS} is a diameter and \overline{PO} is a chord of the circle at right, find the measure of the geometric parts listed below.

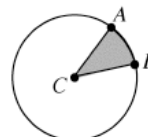


- a. $m\angle QSO$ b. $m\angle QPO$ c. $m\angle ONS$
 d. $m\widehat{PS}$ e. $m\widehat{PQ}$ f. $m\angle PQN$

10-39. For each triangle below, solve for the given variables.

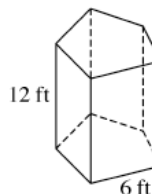


10-40. The spinner at right is designed so that if you randomly spin the spinner and land in the shaded sector, you win \$1,000,000. Unfortunately, if you land in the unshaded sector, you win nothing. Assume point C is the center of the spinner.



- a. If $m\angle ACB = 90^\circ$, how many times would you have to spin to reasonably expect to land in the shaded sector at least once? How did you get your answer?
- b. What if $m\angle ACB = 1^\circ$? How many times would you have to spin to reasonably expect to land in the shaded sector at least once?
- c. Suppose $P(\text{winning } \$1,000,000) = \frac{1}{5}$ for each spin. What must $m\angle ACB$ equal? Show how you got your answer.

10-41. Calculate the total surface area and volume of the prism at right. Assume that the base is a regular pentagon.



10-42. Quadrilateral $ABCD$ is graphed so that $A(3, 2)$, $B(1, 6)$, $C(5, 8)$, and $D(7, 4)$.

- a. Graph $ABCD$ on graph paper. What shape is $ABCD$? **Justify** your answer.
- b. $ABCD$ is rotated 180° about the origin to create $A'B'C'D'$. Then $A'B'C'D'$ is reflected across the x -axis to form $A''B''C''D''$. Name the coordinates of C' and D'' .

10-43. **Multiple Choice:** Which graph below represents $y > -\frac{1}{2}x + 1$? [C]

- a.
- b.
- c.
- d.