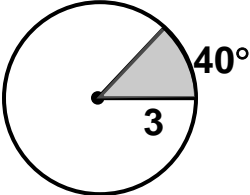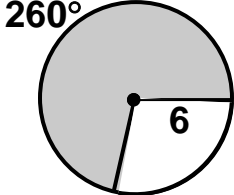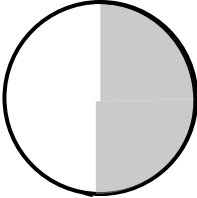**NAME**_____**DATE**_____**PER.**____

ARC LENGTH & SECTOR AREA

Find the measure(s) indicated. Answers to even numbered problems should be rounded to the nearest tenth when appropriate.

1. Arc Length = _____ Sector Area = _____	40° 3
2. Arc Length = _____ Sector Area = _____	260° 6
3. Arc Length = _____ Sector Area = _____	

4. Arc Length = _____	m∠AOB = 90° and r = 6
5. Arc Length = _____	m∠AOB = 108° and r = 10

6. Sector Area = _____	m∠AOB = 30° and r = 6
7. Sector Area = _____	m∠AOB = 108° and r = 10

Find the correct answer for each of the following. Clearly circle or bubble in your answer as necessary. *Work must be shown in order to receive credit*.
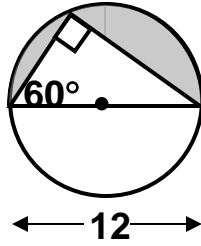
8. _____	In Maria's monthly budget, her utilities account for 7.5% of her total expenses. She wants to create a circle graph depicting where her money is spent each month. How many degrees should be in the central angle of the utilities sector? A. 54° B. 30° C. 27° D. 15°
9. _____	Carlos figures he will spend on average $780 per month in rent and utilities. His total monthly expenses will total $1,950. He wants to create a circle graph depicting his monthly budget. How many degrees should be in the central angle of the home expense sector? A. 108° B. 125° C. 144° D. 170°

Find the measure(s) indicated. Answers to even numbered problems should be rounded to the nearest tenth when appropriate.
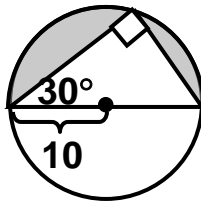
10. r = _____	The area of sector AOB is 48π and m$\angle$AOB = 270°. Find the radius of circle O.
11. m$\angle$AOB = _____	In circle O, the length of $\overset{\frown}{AB}$ is 2π and the radius is 5. Find m$\angle$AOB.
12. r = _____	The area of sector AOB is 9π and m$\angle$AOB = 40°. Find the radius of circle O.
13. Arc Length = _____	m$\angle$AOB = 240° and r = 12
14. Sector Area = _____	m$\angle$AOB = 240° and r = 9

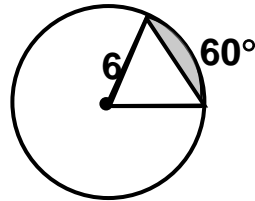**Find the area of each shaded region below. Answers to even numbered problems should be rounded to the nearest tenth.**

15. Area = _____

60°

←—12—→

16. Area = _____

30°

10

17. Area = _____

6

60°

18. Area = _____

12

60°