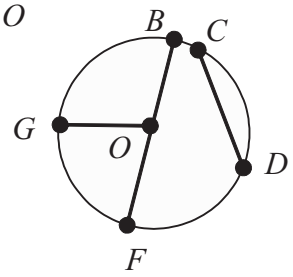
NAME_____

Module 9 **Characteristics of Geometric Shapes**
Lesson 3 **Circles**

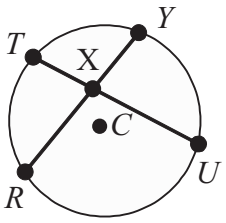
Independent Practice 9.3

Identify the radii, diameters, and chords shown in each circle.

1. Circle *O*



2. Circle *C*



The length of a radius, *r*, or diameter, *d*, is given. Find the missing measure.

3. $d = 61$ m

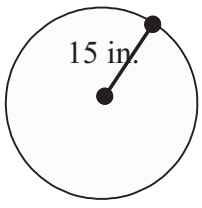
$r = ?$

4. $r = \frac{1}{4}$ ft

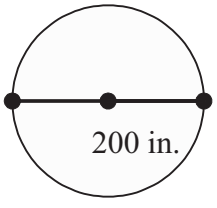
$d = ?$

In each circle, either a radius or diameter is shown. Find the circumference. Round to the nearest inch.

5.



6.



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Tell whether each statement is always true, sometimes true, or never true.

7. A chord is a radius.

8. Diameters in the same circle are congruent.

9. Chords pass through the center of a circle.

10. A merry-go-round is 630 inches in diameter. Use $\frac{22}{7}$ for π to approximate the circumference of the merry-go-round.

11. The diameter of a large pizza is 16 inches. To the nearest inch, what is the circumference of the pizza?

12. The circumference of a bowl is about 66 centimeters. To the nearest centimeter, what is the diameter of the bowl?

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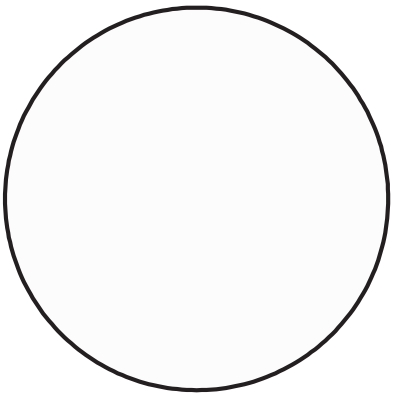
Use the circle below for problems 13–16.



13. Draw and label the center point *P*.

14. Draw and label diameters $\overline{JT}$ and $\overline{AM}$.

15. Draw and label chord $\overline{HK}$ so that it is not a diameter.

16. Name all the radii shown in circle *P*.

Journal

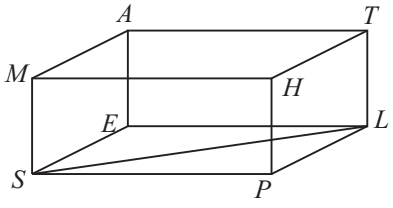
1. Tell how chords and diameters are alike. Tell how they are different.

2. Describe the relationship between a radius and diameter of the same circle. How can you find one if you are given the other?

3. Explain what *pi* represents in a circle. Give two approximations for *pi*. Then, explain which approximation would be most appropriate for estimating the circumference of a circle with a diameter of 10 feet and which would be most appropriate for estimating a circle with a diameter of 14 feet.

Cumulative Review

Use the diagram on the right for Problems 1 – 6.



1. What point is coplanar with points *M*, *A*, and *E*?

2. Describe $\overline{MA}$ and $\overline{HT}$ as parallel, perpendicular, or neither.

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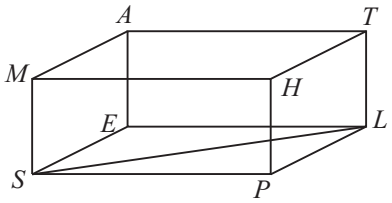
3. Describe $\overline{EL}$ and $\overline{HP}$ as parallel, perpendicular, or neither.

4. Describe $\overline{HP}$ and $\overline{PL}$ as parallel, perpendicular, or neither.



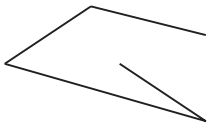
5. Classify $\angle PSL$.

6. The opposite sides of parallelogram *PSEL* are congruent. Tell why $\triangle PLS \cong \triangle ESL$.

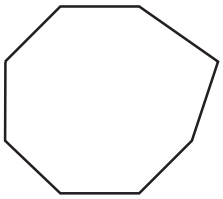
Tell if each figure is a polygon. If so, classify it by its number of sides and tell if it is concave or convex.

7.

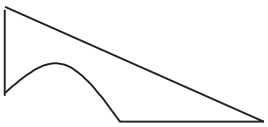
8.



9.



10.



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Additional Work Area

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