Review-Chapter 15

1. Analyze quadrilateral ABCD.



1. Determine the length of each side of quadrilateral ABCD.
2. Determine the slope of each line segment of quadrilateral ABCD.
3. Determine if quadrilateral ABCD can best be described as a trapezoid, a rhombus, a rectangle, or a square. Explain your reasoning.



1. Use line segment FG to answer the following questions.



1. Determine the location of point H such that triangle FGH is an equilateral triangle.

There are two possible locations for point H. Circle F and circle G, both with radius FG, intersect at two locations. Either point of intersection is a possible location for point H.

1. Suppose triangle FGH is a right triangle with right angle G. Determine the location of point H.



1. Analyze triangle LMN.



1. Determine if triangle LMN is scalene, isosceles, or equilateral. Explain your reasoning.
2. Determine if triangle LMN is scalene, isosceles, or equilateral. Explain your reasoning.
3. Circle P has its center at the origin, and contains point M at (-6, 0).
4. Draw circle P.
5. Determine the length of segment MP. What is this line segment called in reference to circle P?
6. Plot point B at (-3, 5) on the coordinate plane. Is point B on circle P? Explain your reasoning.
7. Circle A has its center at (7, -2) and contains point T (11, 1).
8. Determine if point B (2, -2) lies on circle A.
9. Suppose circle A is reflected over the y-axis. Determine the diameter of circle A’.
10. Determine the center of circle C’.

The center of C’ is (-7, -2).

1. Identify the coordinates of the point that lies directly above the center of circle C’.

The point that lies above the center of circle C’ is (-7, 3).