Assignment

LESSON 2: Hip to Be Square

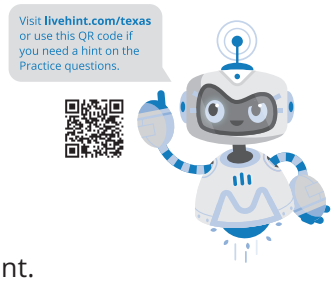
Write

Describe the similarities and differences of a segment bisector and a perpendicular bisector.

Remember

A perpendicular bisector is a line, line segment, or ray that bisects a line segment and is also perpendicular to the line segment.
A translation "slides" a figure up, down, left, or right. A reflection "flips" a figure across a line. A rotation "spins" a figure about a point.

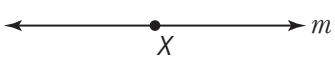
Practice



1. Locate the midpoint of the line segment using construction tools and label it point M. Then explain how you know that point M is the midpoint of $\overline{EF}$.

2. Construct a line perpendicular to each given line and through the given point. Then, explain how you know the constructed line is perpendicular to the given line.

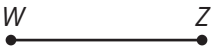
a.



b.

Stretch

Research whether it is possible to trisect a segment using only construction tools. If possible, use construction tools to trisect $\overline{WZ}$ and explain your steps. If not possible, explain why.



Review

1. List three different properties of a square.
2. A right triangle has leg lengths of 6 in. and 8 in. Use the Pythagorean Theorem to determine the length of the hypotenuse. Show your work.