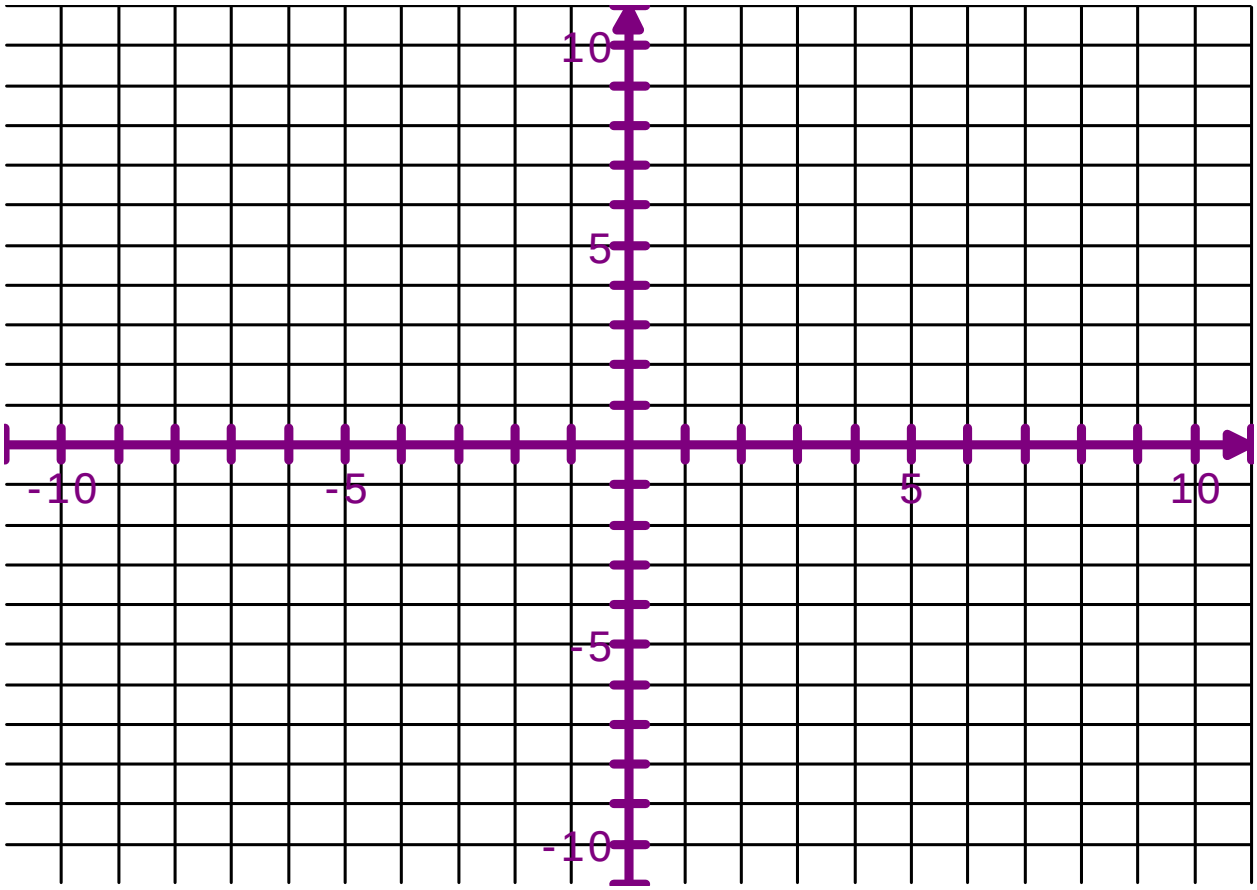
Using Slope Within Geometric Problems

Graph the quadrilateral whose vertices are
(2,-3), (-2,1), (1,5) and (5,1).

Use slope and the distance formula to decide what type of quadrilateral your have graphed.

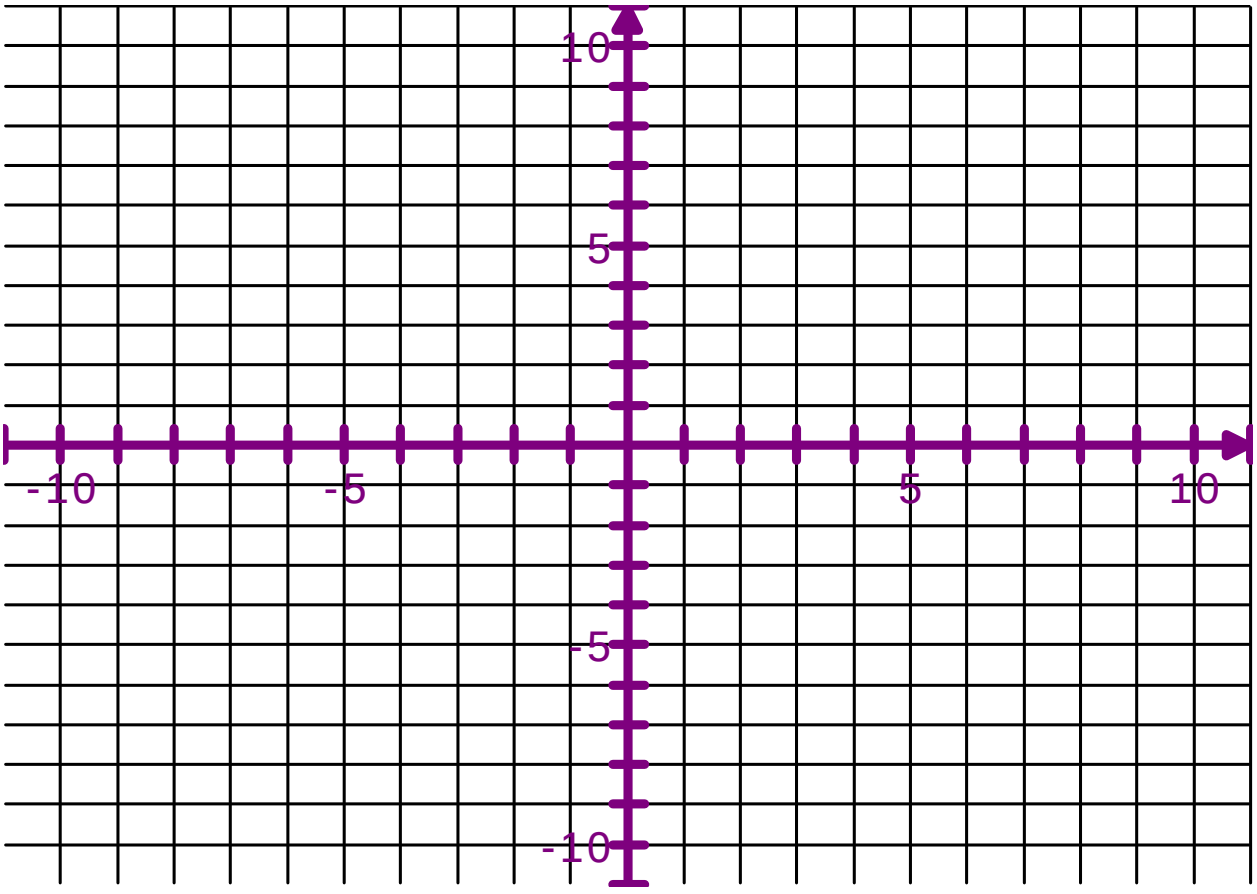


Graph the points (1,0), (7,-2), (4,-5), and (-6, -7).

Use slope and the distance formula to find the type of figure graphed by connecting the points.

Find the midpoints of two sides that are not parallel.

Connect the midpoints. Show and defend two properties of this line segment.



Graph the points (1,0), (6,0), (6, -5), and (-5, -11).

Use slope and the distance formula to find the type of figure graphed by connecting the points.

Write the equation of the line that represents the each diagonal.

Show that the midpoint of the shorter diagonal is a solution of the equation that represents the longer diagonal.