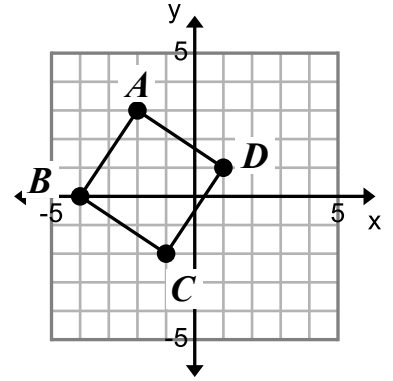## HW 6-6 & 6-7: Properties of Quadrilaterals

1. Determine whether the quadrilateral is a square based on the properties of sides, angles, and diagonals in squares. (Make sure you use correct notation in the table.)
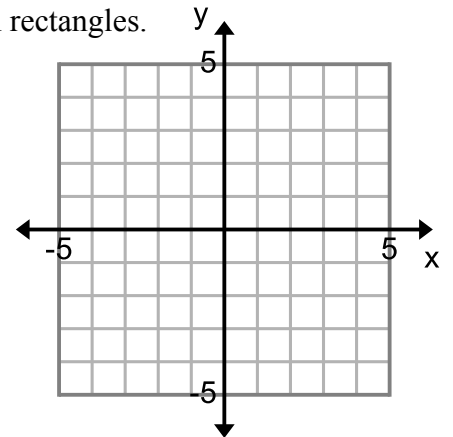
Slope of the Sides:			

Length of the Sides:			

Angle Measures:			

Diagonals:		
Length:	Slope:	Relationship:

Is it a square? _____ Explain using a sentence and mathematical reasoning from the box above.

2. Determine whether the quadrilateral $A(-4,1)$, $B(3,3)$, $C(4,-2)$, $D(-3,-3)$ is a rectangle based on the properties of sides, angles and in rectangles. Justify your reasoning.
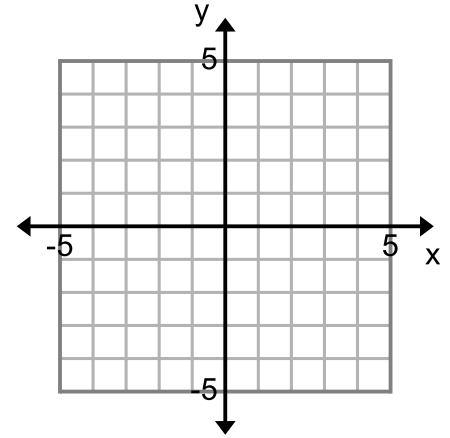
Slope of the Sides:			

Length of the Sides:			

Angle Measures:			

Diagonals:		
Length:	Slope:	Relationship:

3. Determine the specific type of quadrilateral described by the vertices $H(-4,1)$, $I(2,3)$, $J(3,-1)$, and $K(-3,-3)$. Base your answer on the properties of sides, angles, and diagonals in each type of quadrilateral. Justify your reasoning.
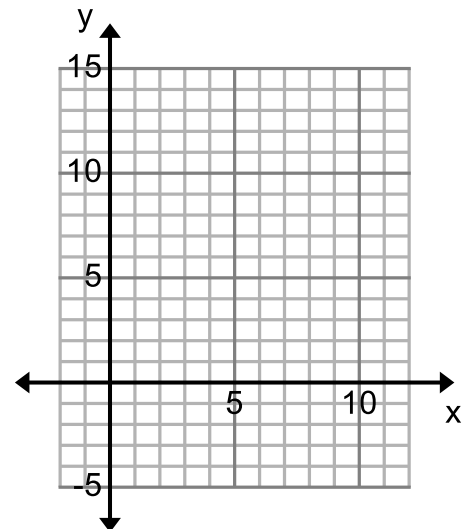
Slope of the Sides:			
Length of the Sides:			
Angle Measures:			
Diagonals:			
Length:	Slope:	Relationship:	

Type of quadrilateral:_____ Explain using a sentence and mathematical reasoning from the box.

4. Determine the specific type of quadrilateral described by the vertices $R(-1,-5)$, $S(8,2)$, $J(11,13)$, and $K(2,6)$. Base your answer on the properties of sides, angles, and diagonals in each type of quadrilateral. Justify your reasoning.

Slope of the Sides:			
Length of the Sides:			
Angle Measures:			
Diagonals:			
Length:	Slope:	Relationship:	

Type of quadrilateral:_____ Explain using a sentence and mathematical reasoning from the box.