

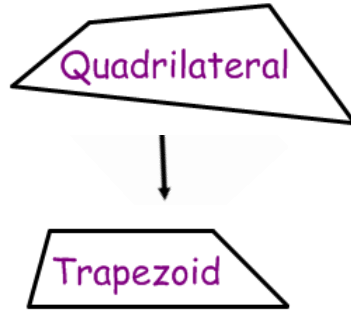
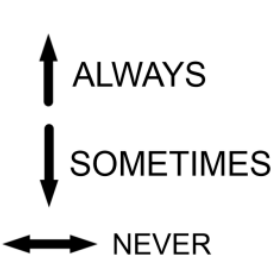
Name: \_\_\_\_\_

Date: \_\_\_\_\_

**UNIT 7**

**LESSON 8**

**AIM: HOW DO WE IDENTIFY QUADRILATERALS USING COORDINATE GEOMETRY?**



\*\*Look \_\_\_\_\_, this shape is ALWAYS that shape.  
  
 \*\*Look \_\_\_\_\_, this shape is SOMETIMES that shape.  
  
 \*\*Look \_\_\_\_\_, this shape is NEVER that shape.

A quadrilateral with

1. AT LEAST one pair of opposite sides \_\_\_\_\_.



A quadrilateral with

1. Opposite sides \_\_\_\_ and \_\_\_\_\_.
2. Opposite angles \_\_\_\_\_.
3. Diagonals \_\_\_\_\_.
4. Consecutive angles add to \_\_\_\_\_.



A trapezoid with

1. Non-Parallel sides \_\_\_\_\_.
2. Base angles \_\_\_\_\_.
3. Diagonals \_\_\_\_\_.



A parallelogram with

1. All sides \_\_\_\_\_.
2. Diagonals \_\_\_\_\_ and bisect \_\_\_\_\_.



A parallelogram with

1. All angles \_\_\_\_\_.
2. Diagonals \_\_\_\_\_.



A parallelogram with

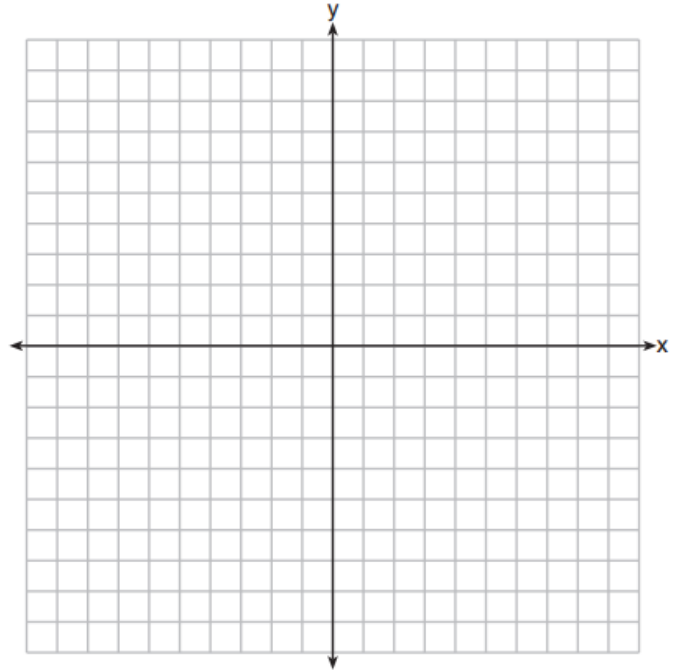
1. All sides \_\_\_\_\_.
2. All angles \_\_\_\_\_.
3. Diagonals \_\_\_\_\_, \_\_\_\_\_ and bisect \_\_\_\_\_.

1. Quadrilateral SWIM has the coordinates  $S(2,1)$   $W(3,4)$   $I(9,6)$   $M(8,3)$

a) Graph SWIM

b) Find the distance of ALL sides and diagonals.

SEGMENT	LENGTH
SW	
WI	
IM	
SM	
SI	
WM	



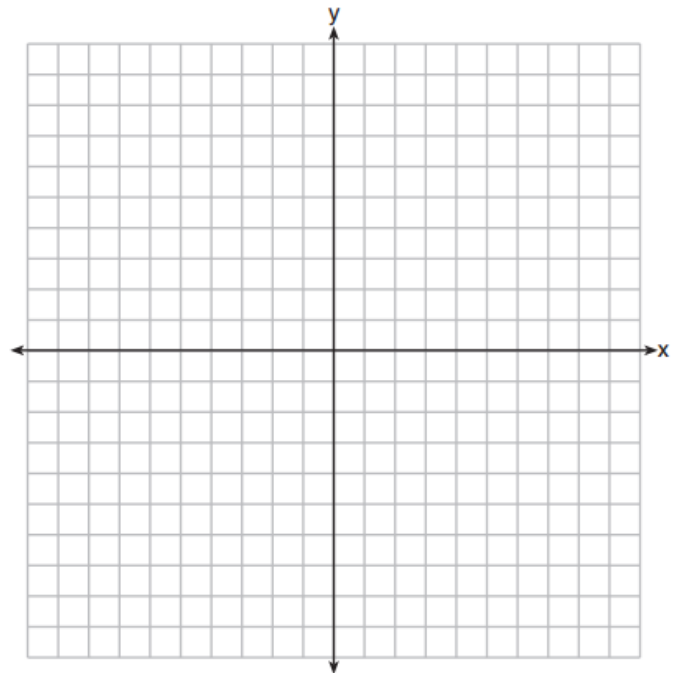
Quadrilateral SWIM is a \_\_\_\_\_  
because \_\_\_\_\_

2. Quadrilateral KLMN has the vertices  $K(0,4)$ ,  $L(4,2)$ ,  $M(1,-4)$  and  $N(-3,-2)$ .

a) Graph KLMN

b) Find the distance of ALL sides and diagonals

SEGMENT	LENGTH
KL	
MN	
MN	
KN	
KM	
LN	



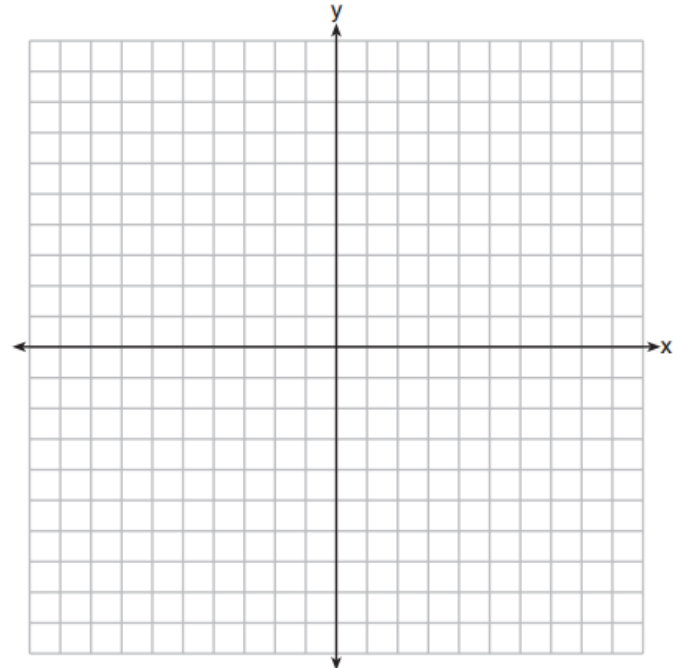
Quadrilateral KLMN is a \_\_\_\_\_  
because \_\_\_\_\_

3. Quadrilateral MATH has the vertices  $M(-2,3)$ ,  $A(2,6)$ ,  $T(7,6)$  and  $H(3,3)$ .

a) Graph MATH

b) Find the distance of ALL sides and diagonals

SEGMENT	LENGTH
MA	
AT	
TH	
HM	
MT	
AH	



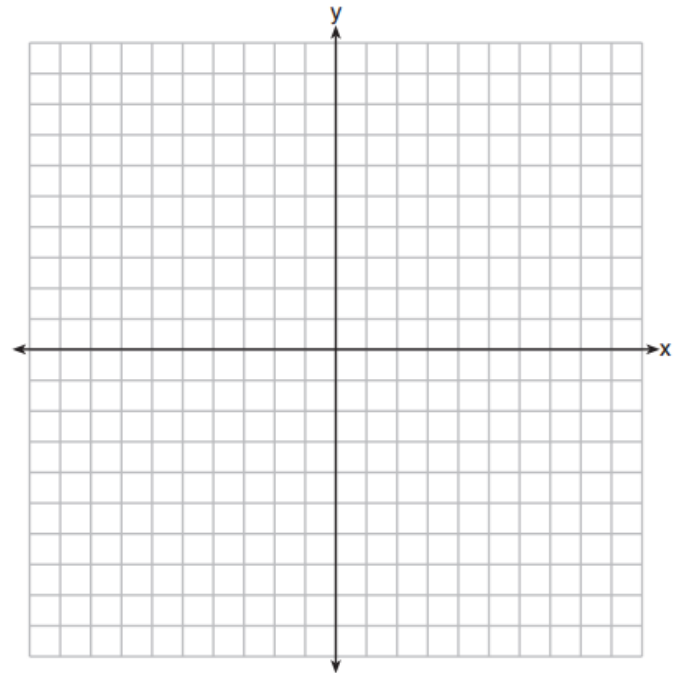
Quadrilateral MATH is a \_\_\_\_\_  
 because \_\_\_\_\_  
 \_\_\_\_\_

4. Quadrilateral NICE has the vertices  $N(0,0)$ ,  $I(4,3)$ ,  $C(7,-1)$  and  $E(3,-4)$  :

a) Graph NICE

b) Find the distance of all sides and diagonals

SEGMENT	LENGTH
NI	
IC	
CE	
EN	
NC	
IE	



Quadrilateral MATH is a \_\_\_\_\_  
 because \_\_\_\_\_  
 \_\_\_\_\_

CONCLUSION:

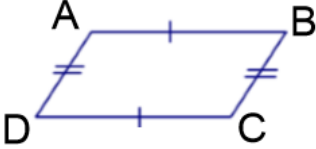
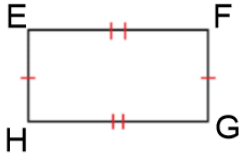
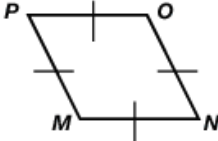
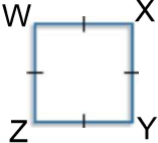
**Proving ANY of the above Quadrilaterals on a Graph**

Step 1: \_\_\_\_\_

Step 2: \_\_\_\_\_

**EXIT TICKET!**

**Quadrilaterals (based on side/diagonal lengths)**

			
$AB = \sqrt{52}$ $BC = \sqrt{20}$ $CD = \sqrt{52}$ $DA = \sqrt{20}$	$EF = \sqrt{48}$ $FG = \sqrt{18}$ $GH = \sqrt{48}$ $HE = \sqrt{18}$	$PO = \sqrt{28}$ $ON = \sqrt{28}$ $NM = \sqrt{28}$ $MP = \sqrt{28}$	$WX = \sqrt{44}$ $XY = \sqrt{44}$ $YZ = \sqrt{44}$ $ZW = \sqrt{44}$
$AC = \sqrt{32}$ $BD = \sqrt{70}$	$EG = \sqrt{56}$ $FH = \sqrt{56}$	$PN = \sqrt{36}$ $OM = \sqrt{25}$	$WY = \sqrt{56}$ $XZ = \sqrt{56}$
<p>This quadrilateral is a _____</p> <p>because _____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>This quadrilateral is a _____</p> <p>because _____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>This quadrilateral is a _____</p> <p>because _____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>This quadrilateral is a _____</p> <p>because _____</p> <p>_____</p> <p>_____</p> <p>_____</p>