CCSS Geometry

Name KEY ID: 1

G6: B Level Test Review

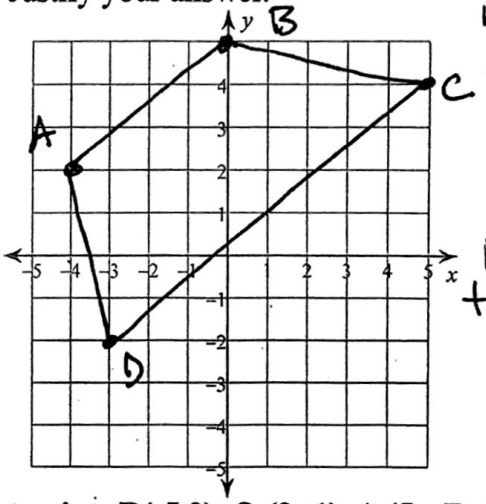
Date _____ Period ____

Directions: Plot the points on the grid. On these questions, it is required to show how you found the distance between two points or the slope of a line to justify it is a specific type of quadrilateral. Show your work on a separate piece of paper if needed.

1)

Plot A(-4, 2) B(0, 5) C (5, 4) and D (-3, -2)

2) What kind of quadrilateral is ABCD?
Justify your answer.



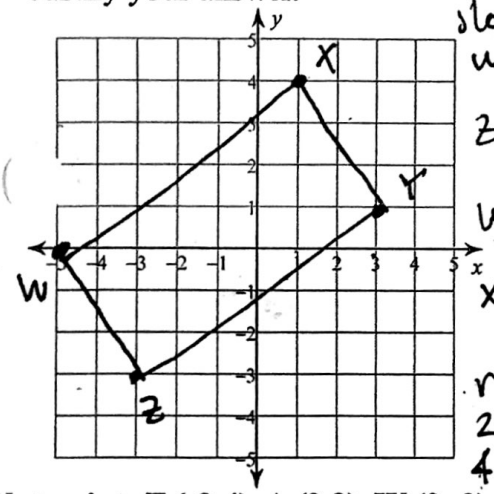
m AB: $\frac{3}{4}$

DC: $\frac{3}{4}$

trapezoid.

Plot points W(-5, 0) X(1, 4) Y(3, 1) & Z (-3, -3)

3) What type of quadrilateral is WXYZ?
Justify your answer.



slope
WX: $\frac{2}{3}$

ZY: $\frac{2}{3}$

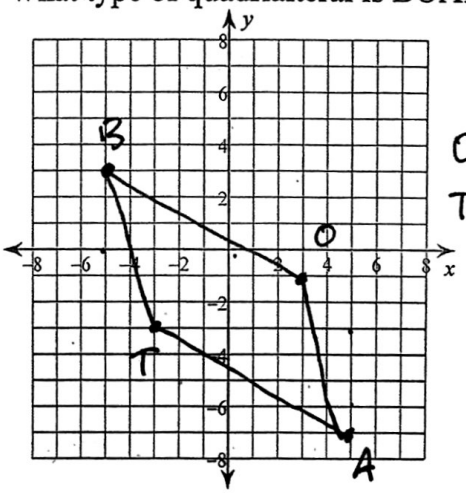
WZ: $-\frac{3}{2}$

XY: $-\frac{3}{2}$

rectangle ∵
2 sets // sides
4 90° angles.

Plot points B(-5,3), O (3,-1), A (5, -7), T (-3, -3)

4) What type of quadrialteral is BOAT?



slope:

OA = $-\frac{3}{2}$ > OA // TB

TB = $-\frac{3}{2}$

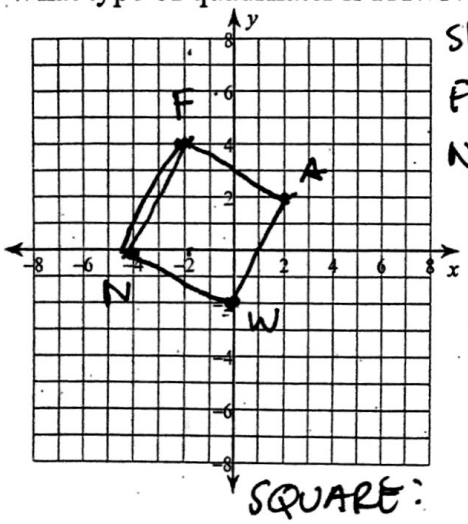
BO = $-\frac{4}{8}$ BO // AT

TA = $-\frac{4}{8}$

Parallelogram

Plot points F (-2,4), A (2,2), W (0,-2), N (-4, 0)

5) What type of quadrilater is FAWN



slope:

FA = $-\frac{1}{2}$ FA // NW

NW = $-\frac{1}{2}$

WA = $\frac{2}{1}$ WA // NF

NF = $\frac{2}{1}$

SQUARE:

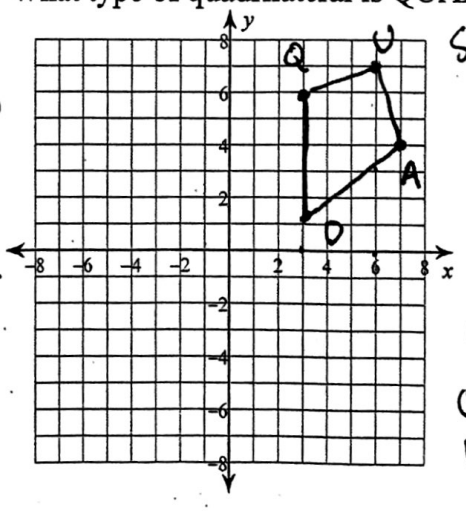
4 equal sides: They all form e≅ right triangles

$\sqrt{20}$

2

Plot points Q (3,6), U (6,7), A (7,4), D (3, 1)

6) What type of quadrilateral is QUAD?



Slope: QU = $\frac{1}{3}$

UA = $-\frac{3}{1}$

QU ⊥ UA

$\overline{QU} = \sqrt{3^2+1^2} = \sqrt{10}$

$\overline{UA} = \sqrt{3^2+1^2} = \sqrt{10}$

QD = 5

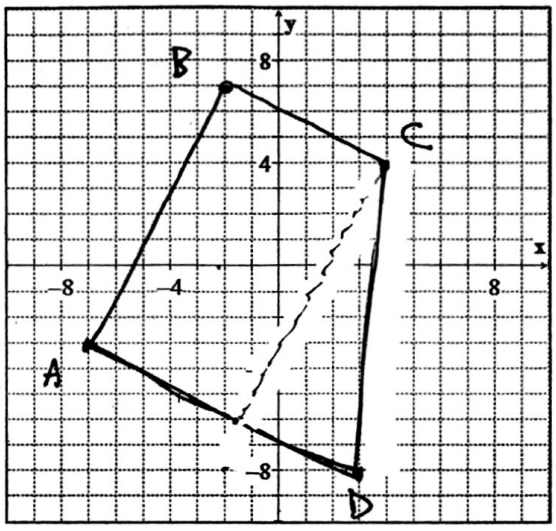
$DA = \sqrt{3^2+4^2} = \sqrt{25}$

DA = 5

Kite

Coordinate Geometry Extension Review Name _____

Use the grid at right to answer the following questions.



1. Plot A (-7, -3) and B (-2, 7). Connect points to create $\overline{AB}$.

   a. Calculate the length of $\overline{AB}$: _____

   $\sqrt{5^2+10^2} = \sqrt{125} \approx 11.18$

   b. Calculate the midpoint of $\overline{AB}$: _____

   $\left(\frac{-9}{2}, \frac{4}{2}\right) = (-4.5, 2)$

   c. What is the slope of $\overline{AB}$: 2 or $\frac{2}{1}$

2. Draw $\overline{BC}$ such that $\overline{AB} \perp \overline{BC}$ and has an approximate length of 6.71 units.

   $6.71^2 \approx 45$ ⇢ $36 + 9 =$ (6, 3) → slope is $-\frac{1}{2}$ so go $\frac{3\downarrow}{6\rightarrow}$

3. Draw $\overline{AD}$ such that $\overline{AD} \parallel \overline{BC}$ and has an approximate length of 11.18 units.

4. Connect C and D to create $\overline{CD}$. D = (3, -8)

   a. Calculate the length of $\overline{CD}$: _____

   $\overline{CD} = \sqrt{1^2 + 12^2} = \sqrt{1+144} = \sqrt{145} \approx 12.04$

   b. Calculate the midpoint of $\overline{CD}$: (3.5, -2)

   (3.5, -2)

   c. What is the slope of $\overline{CD}$: 12 or $\frac{12}{1}$

5. What type of shape is created by ABCD? right trapezoid

   a. Calculate the area of ABCD: _____

   $\text{Area} = \frac{a+b}{2}h = \frac{6.71+11.18}{2}(11.18)$

   Area = 100.00 units^2

   b. Calculate the perimeter of ABCD: 41.11 units

   $11.18 + 11.18 + 6.71 + 12.04$

then calculate