Coordinate Geometry Formative Quiz **1.7, 3.7, 3.8, 6.7** Name _____per____

Use the following coordinates to find midpoint, distance and slope of the segment AB. **A(-2, 5)** and **B(6, -7)**

1) Midpoint = _____

2) Distance (length of AB) = _____

3) Slope = _____

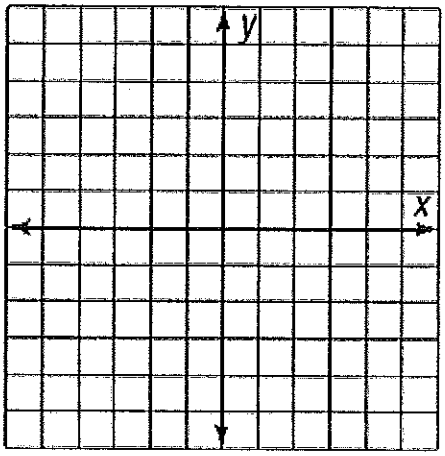
Write the equation of the line containing the two points (4, 6) and (-1, -4);

4) Point-slope form _____

5) Slope-intercept form _____

Graph the equation;

6) **y – 4 = -2(x + 2)**



slope = _____

,oint = _____

Determine the most precise name for the quadrilateral. (hint: first check if a parallelogram using slope, then classify further) **SHOW ALL WORK clearly!! Justify your answer algebraically and in a sentence below.**

7) $A(-6, 3)$, $B(-2, 0)$, $C(-2, -5)$, $D(-6, -2)$

ABCD is a _____ because_____

_____

Coordinate Geometry Formative Quiz **1.7, 3.7, 3.8, 6.7** Name ANSWERS per____

Use the following coordinates to find midpoint, distance and slope of the segment AB. **A(-2, 5)** and **B(6, -7)**

1) Midpoint = $(2, -1)$ $\left(\frac{6-2}{2}, \frac{-7+5}{2}\right) = \left(\frac{4}{2}, \frac{-2}{2}\right)$

2) Distance (length of AB) = $\sqrt{(6+2)^2+(-7-5)^2}$ $64 + 144 = \sqrt{208}$

3) Slope = $-\frac{3}{2}$ $\frac{-7-5}{6+2} = \frac{-12}{8} = -\frac{3}{2}$

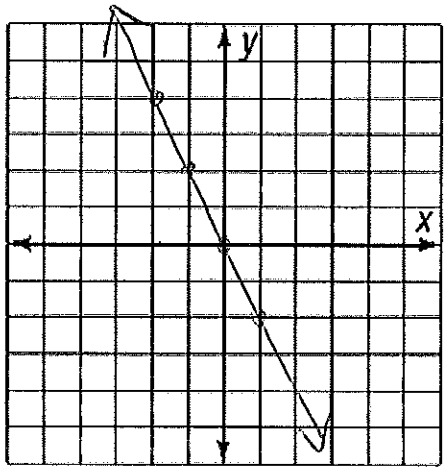
Write the equation of the line containing the two points (4, 6) and (-1, -4); $\frac{-4-6}{-1-4} = \frac{-10}{-5} = 2$

4) Point-slope form $y-6=2(x-4)$ OR $y+4=2(x+1)$

5) Slope-intercept form $y = 2x - 2$ $2x+2$ -4

Graph the equation;

6) **$y - 4 = -2(x + 2)$**



slope = -2

point = $(-2, 4)$

Determine the most precise name for the quadrilateral. (hint: first check if a parallelogram using slope, then classify further) **SHOW ALL WORK clearly!! Justify your answer algebraically and in a sentence below.**

7) *A*(–6, 3), *B*(–2, 0), *C*(–2, –5), *D*(–6, –2)

slopes

$\overline{AB} = \frac{0-3}{-2+6} = -\frac{3}{4}$

$AB = \sqrt{(-2+6)^2+(0-3)^2}$ $16 + 9$ $\sqrt{25} = 5$

$\overline{BC} = \frac{-5-0}{-2+2} = \frac{-5}{0}$ undef.

$BC = \sqrt{(-2+2)^2+(0+5)^2}$ $0 + 25$ $\sqrt{25} = 5$

$\overline{CD} = \frac{-2+5}{-6+2} = \frac{3}{-4}$

$CD = \sqrt{\quad}$

$\overline{DA} = \frac{-2-3}{-6+6} = \frac{-5}{0}$ undef.

$AD = \sqrt{\quad}$

ABCD is a rhombus because opp. sides $\parallel$ and all 4 sides $\cong$