## Intro to Geometry

Name: $\qquad$

Given: $A(-4,-8), B(-2,4), C(3,10)$, and $D(1,-2)$

1. Using the definition of a parallelogram, determine whether the figure is one.
2. Find AD. (length)
3. Find the equation of the line going through points $A$ and $B$.
4. Find the equation of a line perpendicular to $\overline{A B}$, passing through $(6,-5)$.
5. Find the equation of a line parallel to $\overline{A B}$, passing through (3, 7).
