## Geometry (G.GPE.B.4)

Unit One B - Coordinate Geometry Practice \#1 (HW33)

Name: $\qquad$
Date: $\qquad$ Period: $\qquad$

1. Write the equation of a line through $(3,5)$ and $(0,7)$.
2. Write the equation of a line parallel to $y=4 x-5$ through the point $(-2,3)$.
3. Write the equation for a line perpendicular to $y=4 x-5$ through the point $(8,-3)$.
4. Are the following lines parallel, perpendicular, or neither? $\begin{aligned} & 7 x-1 y=14 \\ & 7 x+1 y=14\end{aligned}$
5. Find the distance between $J$ and $L$.

Find the length of $\overline{L M}$.
Prove that $J K=K L$.
$\qquad$
$\qquad$

6. Solve for $y$ if the distance between $A$ and $B$ is 10 .
$A(5, y)$ and $B(-1,-4)$
7. Using the figure to the right, find the slope of all four sides.
a. $m_{A B}=$
b. $\mathrm{m}_{\mathrm{BD}}=$
c. $m_{D C}=$
d. $\mathrm{m}_{\mathrm{AC}}=$


Can you make any conclusions about the sides of this shape?
8. Using the figure above, find the distance of all four sides.
a. $A B=$
b. $B D=$
c. $D C=$
d. $A C=$

Can you make any conclusions about the side of this shape?
9. Determine the midpoint of each of the following segments.
a) $A(-4,6) \quad B(2,-3)$
b) $\mathrm{A}\left(\frac{2}{5},-3\right) \quad \mathrm{B}\left(\frac{-1}{3}, \frac{1}{2}\right)$

