## Geometry

Name: $\qquad$
Unit 6 WS 2

1. $A B C D$ is a parallelogram. Find $A D$.

2. $A B C D$ is a parallelogram. Find $m<A$.

3. $A B C D$ is a parallelogram. Find $A C$.

4. $A B C D$ is a parallelogram. Find the perimeter.

5. Solve for the missing angles in the triangle below.

6. Which pair(s) of points define a line perpendicular to ?
a. $(0,7)$ and $(8,-4)$
b. $(4,-7)$ and $(-4,4)$
c. $(-7,0)$ and $(4,8)$
d. $(7,-4)$ and $(-4,4)$

7. Are the triangles below congruent? Justify your answer by marking additional information you know on the diagram and giving a reason(shortcut).

8. Write the equation of a line parallel to $y-3 x=4$ through the point $(0,5)$.
9. Given points $A, B$, and $C$ in the coordinate plane as shown, find the fourth point in order to meet the criteria described in each situation:
a. Find point $D$ so that $A B C D$ is a parallelogram
b. Find point E so that ABEC is a parallelogram
c. Find point F so that AFBC is a parallelogram

