REVIEW 8.4 & 8.6 BOOK   Name_____

Advanced Math

Lesson 8-4 *(Pages 505–511)*

Find each inner dot product. Determine whether the vectors are parallel, perpendicular, or neither. If it's neither, find the angle between the vectors.

1. $\langle 3, 4 \rangle \cdot \langle 2, 5 \rangle$

2. $\langle -3, 2 \rangle \cdot \langle 4, 6 \rangle$

3. $\langle -5, 3 \rangle \cdot \langle 2, -3 \rangle$

Lesson 8-6 *(Pages 520–525)*

Write the parametric equations of the line that passes through point *P* and is parallel to the given vector.

1. $P(2, 3), \bar{a} = \langle 1, 0 \rangle$

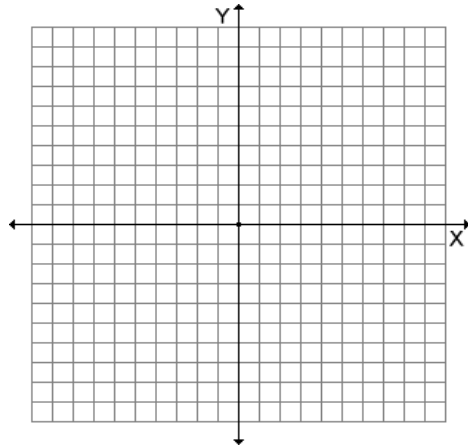**2.** $P(-1, -4), \bar{a} = \langle 5, 2 \rangle$

Write the parametric equations of the line that passes through point *P* and is orthogonal to the given vector.

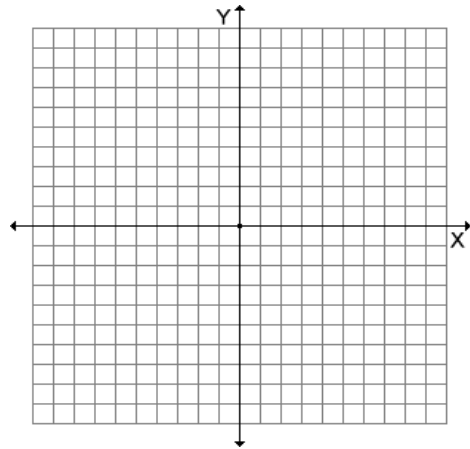**3.** $P(-3, 6), \bar{a} = \langle -2, 4 \rangle$

4. $P(3, 0), \bar{a} = \langle 0, -1 \rangle$

Graph the line represented by the parametric equations. Then write an equation in point-slope form.

5. $x = 3t$
$y = 2 + t$

6. $x = -1 + 2t$
$y = 4t$

7. $x = 3t - 10$
$y = t - 1$