Name: _____

1.5.D1 – Parallel & Perpendicular Lines on the Coordinate Plane

Past due on: _____ Period:_____

Use the slope formula to find the slopes of $\overleftrightarrow{AC}$ & $\overleftrightarrow{BD}$. Are the lines parallel, perpendicular, or neither?

1.

$B(-2, 3)$
$C(4, 1)$
$A(-2, -1)$
$D(0, -2)$

2.

$B(0, 5)$
$(-8, 2)$
A
$C(0, -4)$
$D(8, -2)$
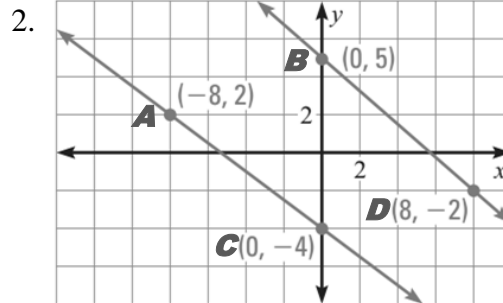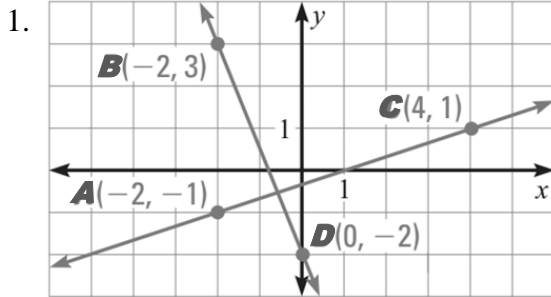
3. Write the equation of three different lines – in slope-intercept form – that are parallel to the line $x - 2y = 12$.

4. Write the equation of three different lines – in slope-intercept form – that are perpendicular to the line $3x + 2y = -6$.

Write an equation in point-slope and slope-intercept form for the line that is parallel to the given line and that passes through the given point.

5. $y = -3x + 4$; $(6, -2)$

6. $y = 4x + 5$; $(4, -3)$

7. $y = \dfrac{1}{2}x + 5$; $(4, -3)$

8. $y = -\dfrac{4}{3}x - 2$; $(3, -5)$

Write an equation in point-slope and slope-intercept form for the line that is perpendicular to the given line and that passes through the given point.

9. $y = -3x + 4$; $(6, -2)$

10. $y = 4x + 5$; $(4, -3)$

11. $y = -\dfrac{2}{3}x - 7$; $(4, 5)$

12. $y = \dfrac{1}{2}x - 2$; $(3, -5)$