Name Period

Sec1H **HW 6-5** **Unit 6**

Equations of Parallel & Perpendicular Lines

Write an equation to the line containing the given points.

1. A(8, -2) & B(-12, -17)

2. C(3, 22) & D(-1, -6)

3. E(-7, -25) & F(0, -4)

4. G(12, 12) & H(18, 15)

Write an equation in slope-intercept form for each line described.

5. Passes through (-7, -4), perpendicular to $y = \frac{1}{2}x + 9$

6. Passes through (-1, -10), parallel to y = 7

7. Passes through (6, 2), parallel to $y = -\frac{2}{3}x + 1$

8. Passes through (-2, 2), perpendicular to $y = -5x - 8$

9. Passes through (4, 2) that is parallel to the line $y - 2 = 3(x + 7)$

10. Contains the point (-8, 12) that is perpendicular to the line containing the points (3, 2) and (-7, 2)

Write an equation in slope-intercept form for each line described.

11. Contains the point (5, 3) that is parallel to the line $y+11=\frac{1}{2}(4x+6)$

12. Write an equation in slope-intercept form for a line perpendicular to $y=-2x+6$ containing (3, 2).

13. Write an equation for a line parallel to $y=4x-5$ containing (-1, 5).

14. Write an equation of the line that is parallel to the graph of $y=7x-3$ and passes through the origin.

15. Contains the point (-10, 2) that is perpendicular to the line containing the points (0, -8) and (5, 17)

16. Contains the point (21, 12) that is parallel to the line containing the points (30, 8) and (-15, -7)

17. Perpendicular to the line shown and containing the point (9, -6)