

FLUENCY PRACTICE: Finding Linear Functions from Point and Slope

Name: _____

Period: _____

Directions: Find the **Point-Slope form** of each line with the given information.

1. What is the **point-slope form** of the linear function that is **parallel** to $y = \frac{3}{2}x - 6$ and goes through $(3, -7)$?
2. What is the **point-slope form** of the linear function that is **perpendicular** to $3x - 4y = -16$ and goes through $(-5, 2)$?
3. What is the **point-slope form** of the linear function that is **perpendicular** to $y - 3 = -\frac{3}{2}(x + 10)$ and goes through $(4, 8)$?
4. What is the **point-slope form** of the linear function that is **parallel** to $5x + 2y = 25$ and goes through $(-8, -1)$?

Directions: Find the **Slope-Intercept form** of each line with the information. **Show all work!**

5. What is the **slope-intercept form** of the linear function that is **parallel** to $y + 6 = -\frac{3}{5}(x + 1)$ and goes through $(-10, -6)$?
6. What is the **slope-intercept form** of the linear function that is **perpendicular** to $y = -3x + 5$ and goes through $(6, 8)$?

7. What is the **slope-intercept form** of the linear function that is **perpendicular** to $y = \frac{1}{2}x - 7$ and goes through $(3, -6)$?
8. What is the **slope-intercept form** of the linear function that is **parallel** to $x - 4y = 12$ and goes through $(-7, 5)$?
9. What is the **slope-intercept form** of the linear function that is **perpendicular** to $3x + 2y = 10$ and goes through $(4, 7)$?
10. What is the **slope-intercept form** of the linear function that is **parallel** to $y - 4 = -\frac{3}{5}(x - 7)$ and goes through $(2, -6)$?