

Name: _____

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Instructor: _____

Date: _____

Class Time: _____

Unit 5 Module B Notes Sections 15.1, 15.3 – 15.5

View the PowerPoint, Videos, or Textbook for Module 5B.

Vocabulary **Fill in the blanks.**

1. (Section 15.4) Two lines are _____ if they have the same slope and different y -intercepts.
2. (Section 15.4) Two lines are _____ if the slopes are opposite reciprocals of each other.
3. (Section 15.5) The point - slope equation of a line with slope m going through the point (x_1, y_1) is _____.
4. (Section 15.5) The slope - intercept equation of a line with slope m going through the point (x_1, y_1) is _____.

Problems **Show ALL steps.**

1. (Section 15.1) Find the function values for $f(x) = 3x^2 - 2x + 1$
 - a) $f(3)$
 - b) $f(-3)$

2. (Section 15.3) Find the slope and y -intercept of $8x - 7y = 21$.

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3. (Section 15.4) Are the lines $2x - 5y = -3$ and $2x + 5y = 4$ parallel, perpendicular, or neither?

4. (Section 15.4) Are the lines $2y + 8 = x$ and $6x + 3y = 5$ parallel, perpendicular, or neither?

5. (Section 15.5) Find the equation of the line (in slope-intercept form) having a slope of $m = 3$ and containing the point $(-2, 4)$.

6. (Section 15.5) Write the equation of the line (in slope-intercept form) containing the point $(4, 1)$ and perpendicular to the line $x - 3y = 9$.