Algebra II Test Sections 2.4 2.5 3.2 3.3 Mr. Pleacher Name _____

I. Multiple Choice

_____ 1. Which is the solution of $x - 1 \leq 3x + 7$?

(A) $x \leq 4$ (B) $x \leq -4$ (C) $x \geq 4$ (D) $x \geq -4$

_____ 2. What is the slope of the line that passes through (-6, 4) and (2, 10)?

(A) $\frac{4}{3}$ (B) $-\frac{4}{3}$ (C) $-\frac{3}{4}$ (D) $\frac{3}{4}$

_____ 3. Which of the following is **not** a function?

(A) {(1, 2), (-2, 2), (3, 3)}
(B) {(1, 2), (-2, 6), (3, 3)}
(C) {(2, 2), (2, 3), (4, 3)}
(D) {(1, 3), (2, 3), (4, 3)}

_____ 4. Given the equation of a line, $y = -2x - 7$, what is the slope of that line?

(A) 1 (B) -2 (C) -7 (D) 2

_____ 5. Given the line $2x + 3y = 4$, what is the y-intercept?

(A) –4 (B) 4 (C) $-\frac{2}{3}$ (D) $\frac{4}{3}$

II. Solve and Check each equation. SHOW WORK ON YOUR OWN PAPER.

6. $|x-1| = 5$

7. $|2x+3| = 5$

8. $|3x-1| = 7x$

III. Solve and graph each inequality. SHOW ALL WORK ON YOUR OWN PAPER.

9. $3x + 2 < -25$

10. $2x - 5 \leq -11$ or $x + 6 \geq 8$

11. $3x > -12$ and $4x - 1 < 19$

12. $|2x + 7| > 3$

IV. Linear Equations

13. Write an equation of a line in slope-intercept form that passes through the points (-6, 6) and (9, 1).

14. Determine the equation of a line that is parallel to the line $y = 3x - 6$, and passes through the point (1, 1).

15. Determine the equation of the line which is perpendicular to the line $y = -2x + 1$ and passes through the point (-1, 2).

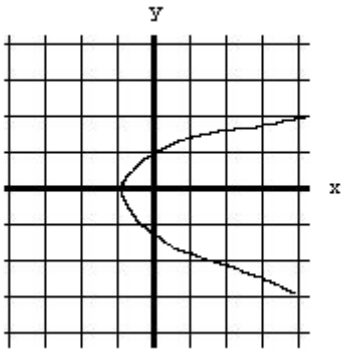
16. Write an equation of a line in point-slope form that passes through the point (2, 6) and has a slope of –3.

17. Which two of the following graphs are vertical translations of each other?

(A) $y = 4x - 5$ (B) $x + 4y = 5$ (C) $4x - y = 2$

18. Write an equation of a line in standard form that passes through the point (-1, -3) and has slope m = $\frac{2}{5}$.

19. Use the vertical line test to determine if the graph represents a function:



20. Determine the **domain** and **range** of the function
P = {(1, -4), (2, -5), (3, 8), (6, 0)}

Extra Credit:

21. Determine the value of *k* such that the y-intercept of the line with equation $3x + 2ky + 9 = 0$ is –6.