Extra Practice # 1.5

In 1-6, solve.

1. $|3x - 6| = 6(x - 2)$

2. $2|4x + 1| - 5 \leq 1$

3. $|2y - 3| + 1 = 0$

4. $\frac{3x-2}{6} = -\frac{x+5}{4}$

5. $4 - 2x < -2 \ or \ \frac{x}{5} - 4 \geq -3$

6. $-2|2 - x| + 9 \leq 3$

In 7-10, Write the equation of the line in the stated form with the given information.

7. Through (1,9) and (6,2);standard form

8. Perpendicular to $x + 3y = 4$ through(1,5);slope-intercept

9. Parallel to $4x - 2y = 6$ containing (-3,5);point-slope

10. $m = \frac{4}{9}$ through (2,7);slope-intercept form

11. Graph by the intercepts. SHOW WORK.

   $-6x + 8y = -24$

12. W varies directly as G and W=14 when G=-3. a) Find the constant of variation, k. b) Write the direct variation equation c) Find G when W=9

In 13-16, explain the transformation or write the new function from the explanation.

Given: $f(x) = |x|; g(x) = x^2$

13. $w(x) = -4|x|$

14. $p(x) = (x - 1)^2 - 5$

15. Using parent function $g(x)$, vertically compressed by a factor of $\frac{2}{7}$, horizontally translated 4 units right.

16. Using parent function $f(x)$, vertically translated 6 units down, reflected across the x-axis.

1. $x = 2$

2. $-1 \le x \le \frac{1}{2}$

3. no solutions

4. $x = -\frac{11}{9}$

5. $x > 3$

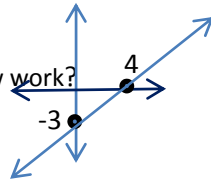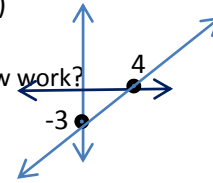6. $x \le -1 \ \ or \ \ x \ge 5$

7. $7x + 5y = 52$

8. $y = 3x + 2$

9. $y - 5 = 2(x + 3)$

10. $y = \frac{4}{9}x + \frac{55}{9}$

11. x-int(4,0) y-int(0,-3)

Do you know how to show work?

12. a) $k = -\frac{14}{3}$ b) $W = -\frac{14}{3}G$ c) $G = -\frac{27}{14}$

13. vertically stretched by a factor of 4, reflected across the x-axis

14. horizontally translated1 unit right, vertically translated 5 units down.

15. $w(x) = \frac{2}{7}(x - 4)^2$

16. $k(x) = -|x| - 6$