Algebra 1 Enrichment- Mr. Allen-Black Name_____

Absolute Value Equations and Inequalities Extra Practice

Date_____

Solve each equation.

1) $-10\left|2x\right| = -100$

2) $\left|-5r\right| - 5 = 5$

3) $\left|x + 1\right| + 5 = 10$

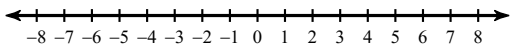
4) $5\left|p - 5\right| = 5$

5) $7\left|8x + 8\right| = 112$

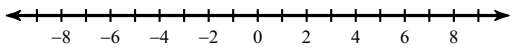
6) $4\left|10b\right| - 7 = 73$

Solve each inequality and graph its solution.

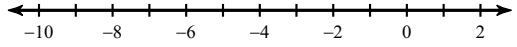
7) $\left|x\right| > 5$



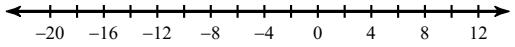
8) $\left|a\right| > 4$



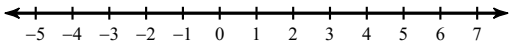
9) $\left|4 + x\right| \leq 2$



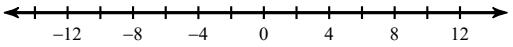
10) $\left|r + 5\right| \geq 13$



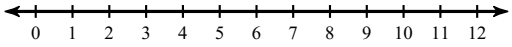
11) $\left|k\right| - 10 > -8$



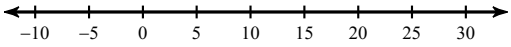
12) $-2\left|p\right| \leq -20$



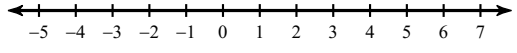
13) $\left|x - 6\right| - 9 \geq -7$



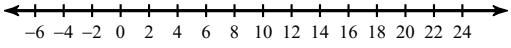
14) $\left|a - 10\right| - 4 < 14$



15) $10\left|\frac{a}{10}\right| < 1$



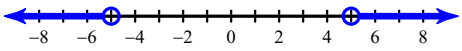
16) $\left|v - 9\right| - 10 \leq 4$



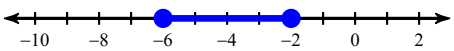
Answers to Absolute Value Equations and Inequalities Extra Practice

1) $\{5, -5\}$ 3) $\{4, -6\}$ 5) $\{1, -3\}$

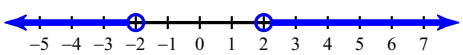
7) $x > 5$ or $x < -5$:



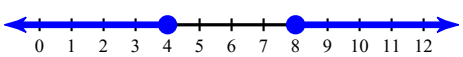
9) $-6 \le x \le -2$:



11) $k > 2$ or $k < -2$:



13) $x \ge 8$ or $x \le 4$:



15) $-1 < a < 1$: