 Name_____

Solving Absolute Value Equations

Date_____ Period____

Solve each equation.

1) $|p - 1| = 4$

2) $|p - 3| = 3$

3) $|-6 + a| = 9$

4) $|-1 + n| = 5$

5) $|6 + 5p| = 14$

6) $|5 - b| = 2$

7) $|9x - 4| = 86$

8) $|3 + 7x| = 73$

9) $|-5x| + 4 = -11$

10) $\frac{|x+4|}{10} = -1$

11) $3\left|\frac{x}{9}\right| + 7 = 8$

12) $-4|b-2| - 9 = -37$

13) $10|7x+3| = 0$

14) $-8|3-8k| = 40$

15) $10 - 10|-8k+4| = 10$

16) $4 - 9|-6-b| = -14$

17) $-3|9m+2| + 10 = 10$

18) $6 - 3|-8r-9| = -15$

Kuta Software - Infinite Algebra 2 Name_____

Solving Absolute Value Equations

Date_____ Period____

Solve each equation.

1) $|p - 1| = 4$

$\{5, -3\}$

2) $|p - 3| = 3$

$\{6, 0\}$

3) $|-6 + a| = 9$

$\{15, -3\}$

4) $|-1 + n| = 5$

$\{6, -4\}$

5) $|6 + 5p| = 14$

$\left\{\frac{8}{5}, -4\right\}$

6) $|5 - b| = 2$

$\{3, 7\}$

7) $|9x - 4| = 86$

$\left\{10, -\frac{82}{9}\right\}$

8) $|3 + 7x| = 73$

$\left\{10, -\frac{76}{7}\right\}$

9) $|-5x| + 4 = -11$

No solution.

10) $\frac{|x+4|}{10} = -1$

No solution.

11) $3\left|\frac{x}{9}\right| + 7 = 8$

$\{3, -3\}$

12) $-4|b-2| - 9 = -37$

$\{9, -5\}$

13) $10|7x+3| = 0$

$\left\{-\frac{3}{7}\right\}$

14) $-8|3-8k| = 40$

No solution.

15) $10 - 10|-8k+4| = 10$

$\left\{\frac{1}{2}\right\}$

16) $4 - 9|-6-b| = -14$

$\{-8, -4\}$

17) $-3|9m+2| + 10 = 10$

$\left\{-\frac{2}{9}\right\}$

18) $6 - 3|-8r-9| = -15$

$\left\{-2, -\frac{1}{4}\right\}$