

Absolute Value Equation KEY

$$11) |5x| + 5 = 45$$

$$\{8, -8\}$$

$$12) 3|-8x| + 8 = 80$$

$$\{-3, 3\}$$

$$13) 5 - 8|-2n| = -75$$

$$\{-5, 5\}$$

$$14) -5|3 + 4k| = -115$$

$$\left\{5, -\frac{13}{2}\right\}$$

$$15) \frac{|7p + 4|}{8} = 3$$

$$\left\{\frac{20}{7}, -4\right\}$$

$$16) 3 - |8x - 6| = 3$$

$$\left\{\frac{3}{4}\right\}$$

$$17) 2 - 5|5m - 5| = -73$$

$$\{4, -2\}$$

$$18) 6|1 - 5x| - 9 = 57$$

$$\left\{-2, \frac{12}{5}\right\}$$

$$19) 3|3 - 5r| - 3 = 18$$

$$\left\{-\frac{4}{5}, 2\right\}$$

$$20) 5|9 - 5n| - 7 = 38$$

$$\left\{0, \frac{18}{5}\right\}$$

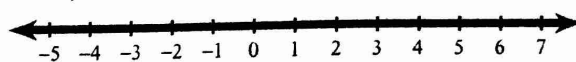
Absolute Value Inequalities KEY

15) $|-8a - 3| > 11$



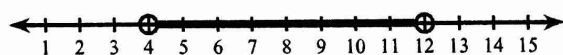
$a < -\frac{7}{4}$ or $a > 1$

16) $|1 - 4k| \geq -11$



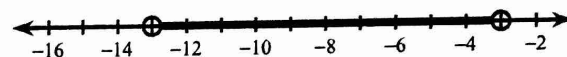
{ All real numbers. }

17) $9|m - 8| - 10 < 26$



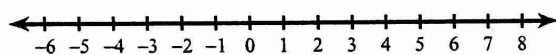
$4 < m < 12$

18) $9|x + 8| + 10 < 55$



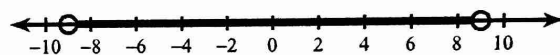
$-13 < x < -3$

19) $9|r - 2| - 10 < -73$



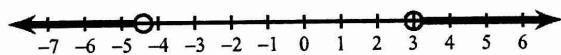
No solution.

20) $7\left|\frac{n}{3}\right| - 9 < 12$



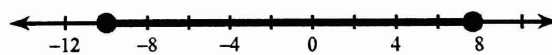
$-9 < n < 9$

21) $2|10b + 7| - 1 > 73$



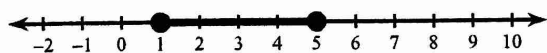
$b > 3$ or $b < -\frac{22}{5}$

22) $7 + |6v + 7| \leq 60$



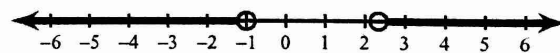
$-10 \leq v \leq \frac{23}{3}$

23) $4|6 - 2a| + 8 \leq 24$



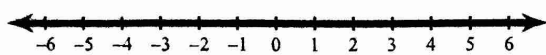
$1 \leq a \leq 5$

24) $9|3n - 2| + 6 > 51$



$n > \frac{7}{3}$ or $n < -1$

25) $3 + 4|3x + 7| \geq -89$



{ All real numbers. }

26) $9|1 + 8n| - 3 \geq 78$



$n \geq 1$ or $n \leq -\frac{5}{4}$