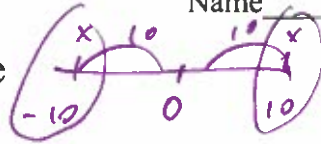


$|x| = 10$

Absolute Value Equations Practice



Solve each equation.

1) $\left| \frac{a}{4} \right| = 3$

2) $|9+r| = -2$

$4 \cdot \frac{C_1}{4} = 3 \cdot 4$

$4 \cdot \frac{C_2}{4} = -3 \cdot 4$

No Solution

$a = 12$ OR $a = -12$

3) $|3-6b| = 0$

C_1
 $3-6b = 0$
 $-3 \quad -3$

C_2 ← Not Needed
 $3-6b = 0$

$-6b = -3$
 $-6 \quad -6$
 $b = \frac{3}{6} = \frac{1}{2}$

4) $|7n-2| = 44$

C_1
 $7n-2 = 44$
 $+2 \quad +2$

C_2
 $7n-2 = -44$
 $+2 \quad +2$

$7n = 46$
 $n = \frac{46}{7}$

$7n = -42$
 $n = -6$

5) $-9|8r+1| = -2$

$-9|8r+1| = -2$
 $-9 \quad -9$
 $|8r+1| = \frac{-2}{-9} \leftarrow \div$

$|8r+1| = 1$

C_1
 $8r+1 = 1$
 $-1 \quad -1$
 $8r = 0$

C_2
 $8r+1 = -1$
 $-1 \quad -1$
 $8r = -2$
 $\frac{8r}{8} = \frac{-2}{8} \quad |r = -\frac{1}{4}|$

6) $-10-7|2a-2| = -38$

$-10-7|2a-2| = -38$
 $+10 \quad +10$
 $-7|2a-2| = -28$
 $\frac{-7|2a-2|}{-7} = \frac{-28}{-7}$
 $|2a-2| = 4$

C_1
 $2a-2 = 4$
 $+2 \quad +2$
 $2a = 6$
 $\frac{2a}{2} = \frac{6}{2}$
 $a = 3$

C_2
 $2a-2 = -4$
 $+2 \quad +2$
 $2a = -2$
 $\frac{2a}{2} = \frac{-2}{2}$
 $a = -1$