

Algebra II - 1.5 & 1.6 WS

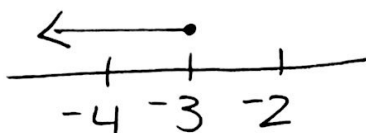
Section 1.5

Solve the inequality and graph the solution.

1. $-3x - 8 \geq 1$

$-3x \geq 9$

$x \leq -3$

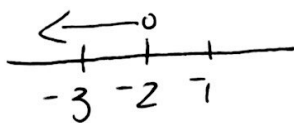


2. $3(y+2) < -2y-4$

$3y+6 < -2y-4$

$5y < -10$

$y < -2$



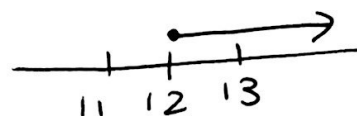
3. $3n \leq 4(n-1) - 8$

$3n \leq 4n - 4 - 8$

$3n \leq 4n - 12$

$-n \leq -12$

$n \geq 12$



4. $-5x - 1 < 9$ and $3x \leq x + 4$

$-5x < 10$ $2x \leq 4$

$x > -2$ and $x \leq 2$



5. $2m > 3 - m$ or $-6 - 2m \geq 4$

$3m > 3$

$-2m \geq 10$

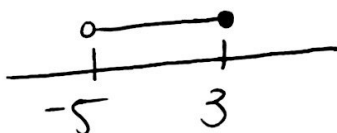
$m > 1$ or $m \leq -5$



6. $-7 < 2x + 3 \leq 9$

$-10 < 2x \leq 6$

$-5 < x \leq 3$



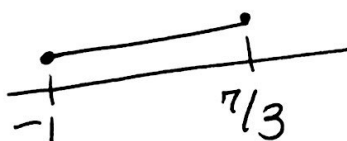
7. $-8 \leq -3h - 1 < 2$

$+1$ $+1$

$-7 \leq -3h \leq 3$

$\frac{-7}{-3} \leq \frac{-3h}{-3} \leq \frac{3}{-3}$

$\frac{7}{3} \geq h \geq -1$



$-1 \leq h \leq \frac{7}{3}$

Name: _____

Period: _____

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Section 1.6

Solve each equation.

1. $|4m+2|=10$

$$\begin{array}{l} 4m+2=10 \\ 4m=8 \\ \boxed{m=2} \end{array} \quad \begin{array}{l} -4m-2=10 \\ -4m=12 \\ \boxed{m=-3} \end{array}$$

2. $|2c-6|-7=5$

$$\begin{array}{l} |2c-6|=12 \\ 2c-6=12 \\ 2c=18 \\ \boxed{c=9} \end{array} \quad \begin{array}{l} -2c+6=12 \\ -2c=6 \\ \boxed{c=-3} \end{array}$$

3. $|2d-1|=d-3$

$$\begin{array}{l} 2d-1=d-3 \\ d=-2 \\ \text{check} \end{array} \quad \begin{array}{l} -2d+1=d-3 \\ -3d=-4 \\ d=4/3 \\ \text{check} \end{array}$$

Neither
check.NO SOLUTION

Solve each equation and graph the solution.

4. $|6t-1|>11$

$$\begin{array}{l} 6t-1>11 \\ 6t>12 \\ t>2 \end{array} \quad \begin{array}{l} -6t+1>11 \\ -6t>10 \\ t<-\frac{10}{6} = -\frac{5}{3} \end{array}$$

OR

$$\boxed{t>2 \text{ or } t<-\frac{5}{3}}$$

5. $|2k-3|\leq 5$

$$\begin{array}{l} 2k-3\leq 5 \\ 2k\leq 8 \\ \boxed{k\leq 4} \end{array} \quad \begin{array}{l} -2k+3\leq 5 \\ -2k\leq 2 \\ \boxed{k\geq -1} \end{array}$$



6. $|2y-18|+4<10$

$$\begin{array}{l} |2y-18|<6 \\ 2y-18<6 \\ 2y<24 \\ y<12 \end{array} \quad \begin{array}{l} -2y+18<6 \\ -2y<-12 \\ y>6 \end{array}$$

$$\boxed{y<12 \text{ and } y>6}$$

