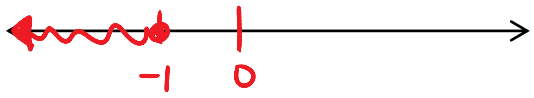
Day 4 6.1-6.3 Homework **Page 372 #4-12 Even, 17-20, 23**

Solve the inequality. Graph your solution. Show work here:

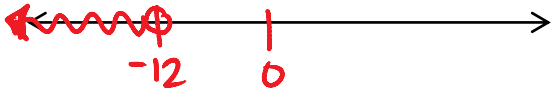
4) $5y + 9 \le 4$

$y \le -1$



6) $3(w + 12) < 0$

$w < -12$



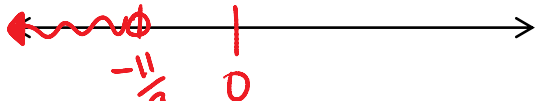
8) $2(s + 4) \le 16$

$s + 4 \le 8$

$s \le 4$

10) $8n - 2 > 17n + 9$

$n < -\frac{11}{9}$



12) $4 - \frac{1}{2}q \le 33 - q$

$q \le 58$

Solve the inequality, if possible.

17) $3p - 5 > 2p + p - 7$

$3p - 5 > 3p - 7$

$-5 > -7$ (true statement!)

$\mathbb{R}$

18) $5d - 8d - 4 \le -4 + 3d$

$d \ge 0$

19) $3(s-4) \geq 2(s-6)$

$s \geq 0$

20) $2(t-3) > 2t-8$

TR

23) $6(x+3) < 5x+18+x$

$6x+18 < 6x+18 \rightarrow 18 < 18$: no! No solution

Review for Quiz

1. Describe the meaning of an absolute value of a number:

The distance a # is away from zero

2. Before you break into 2 cases to solve an absolute value, first you must do what?

Isolate the absolute value

3) $|x| = 13$

$x = 13$ or $x = -13$

4) $|4x + 3| + 20 = 13$

$|4x+3| = -7$

No solution

5) $2|2x-5|+2=14$

$2|2x-5| = 12$

$|2x-5| = 6$

$2x-5 = 6$ $\quad$ $2x-5 = -6$

$2x = 11$ $\quad$ $2x = -1$

$x = 11/2$ or $x = -1/2$

6) $-3|6x+3| = -27$

$\frac{-3}{-3} \quad \frac{-27}{-3}$

$|6x+3| = 9$

$6x+3 = 9$ $\quad$ $6x+3 = -9$

$6x = 6$ $\quad$ $6x = -12$

$x = 1$ or $x = -2$

7) $2+5|x-7| = 32$

$-2 \quad -2$

$\frac{5|x-7|}{5} = \frac{30}{5}$

$|x-7| = 6$

$|x-7| = 6$

$x-7 = 6$ $\quad$ $x-7 = -6$

$x = 13$ or $x = 1$