

Two-Step Inequalities

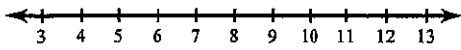
Date _____

Period _____

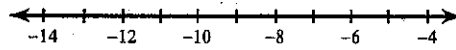
Solve each inequality and graph its solution.

LOOK AT EXAMPLES & SOLVE THE REST.

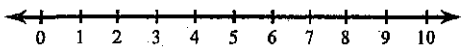
1) $2x + 4 \geq 24$



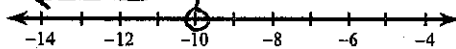
2) $\frac{m}{3} - 3 \leq -6$



3) $-3(p + 1) \leq -18$



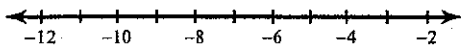
4) $-4(-4 + x) > 56$



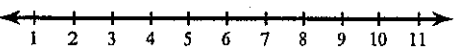
$$\begin{array}{r} \cancel{6} - 4x > 56 \\ + -16 \quad + -16 \\ \hline \end{array}$$

$$\begin{array}{r} -4x > 40 \\ \text{FLIP THE SIGN} \div \\ \text{BY } -4. \\ \hline x < -10 \end{array}$$

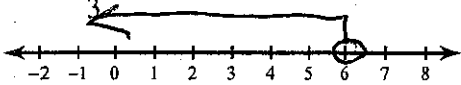
5) $-b - 2 > 8$



6) $-4(3 + n) > -32$

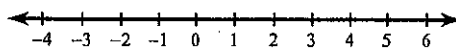


7) $4 + \frac{n}{3} < 6$

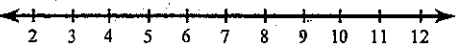


$$\begin{array}{r} 4 + \frac{n}{3} < 6 \\ + -4 \quad + -4 \\ \hline 3 \cdot \frac{n}{3} < 2 \cdot 3 \\ n < 6 \end{array}$$

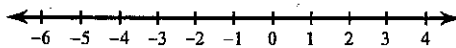
8) $-3(r - 4) \geq 0$



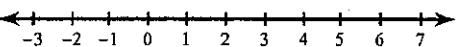
9) $-7x + 7 \leq -56$



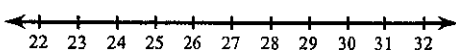
10) $-3(p - 7) \geq 21$



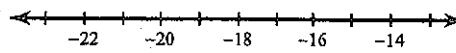
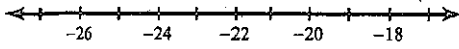
11) $-11x - 4 > -15$



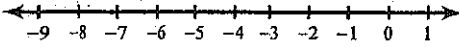
12) $\frac{-9 + a}{15} > 1$



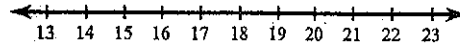
$$13) -1 \leq \frac{\quad}{21}$$



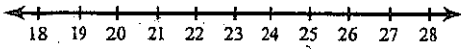
$$15) \frac{-11+n}{15} < -1$$



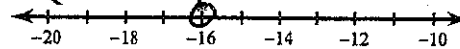
$$16) -90 \geq -5(k-3)$$



$$17) 4 < 1 + \frac{n}{7}$$

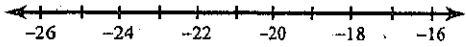


$$18) -1 > \frac{12+x}{4}$$

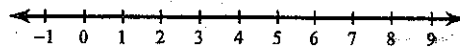


$$\begin{aligned} 4 \cdot -1 &> \frac{12+x}{4} \cdot 4 \\ -4 &> 12+x \\ +(-12) &+(-12) \\ \hline -16 &> x \end{aligned}$$

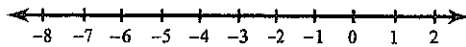
$$19) 7n - 1 > -169$$



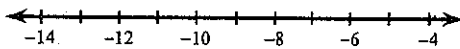
$$20) -4b - 5 > -25$$



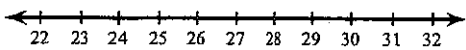
$$21) 84 \geq -7(v-9)$$



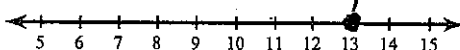
$$22) \frac{-8+r}{2} > -8$$



$$23) \frac{x}{-6} - 8 \leq -12$$



$$24) \frac{m-3}{2} \leq 5$$



$$\frac{m-3}{2} \leq 5 \cdot 2$$

$$\begin{aligned} m-3 &\leq 10 \\ +3 &+3 \end{aligned}$$

$$m \leq 13$$