Name: KEY
Date:
Period:
Class Number:

Solving One-Step Inequalities

Extra Notes:

When solving inequalities using addition and subtraction:

- **Solve just like an equation.**

When solving inequalities using multiplication and division:

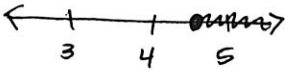
- **Solve just like an equation when multiplying and dividing with a positive integer.**
- **Change the direction when multiplying and dividing with a NEGATIVE integer.**

Solve each inequality, draw a number line and graph its solution

1) $x + \frac{1}{2} \geq 5$

$-\frac{1}{2}\ -\frac{1}{2}$

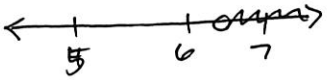
$x \geq 4\frac{1}{2}$



2) $x - \frac{1}{3} > 6$

$+\frac{1}{3}\ +\frac{1}{3}$

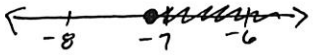
$x > 6\frac{1}{3}$



3) $-\frac{7}{8} + x \geq -8$

$+\frac{7}{8}\quad +\frac{7}{8}$

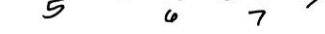
$x \geq -7\frac{1}{8}$



4) $n - 2.5 \leq 4$

$+2.5\ +2.5$

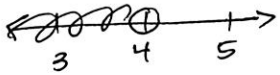
$n \leq 6.5$



5) $v - 1 < 3$

$+1\ +1$

$v < 4$



6) $r + \frac{4}{5} < 3$

$-\frac{4}{5}\ -\frac{4}{5}$

$r < 2\frac{1}{5}$

7) $n - 4 \geq 13$

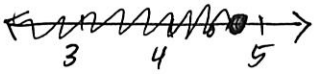
$+4\ +4$

$n \geq 17$

8) $-\frac{2}{3} + x \leq 4$

$+\frac{2}{3}\quad +\frac{2}{3}$

$x \leq 4\frac{2}{3}$

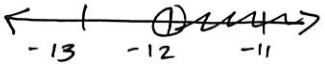


9) $-28 < v - 16$

$+16\quad +16$

$-28 + 12 = 12$

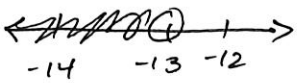
$-12 < v$



10) $x - 7 < -20$

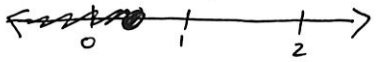
$+7\ +7$

$x < -13$



11) $\frac{-4m}{-4} \geq \frac{-2}{-4}$

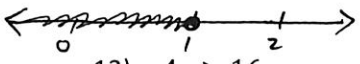
$m \leq \frac{1}{2}$



12) $\frac{n}{5} \leq \frac{1}{5}$

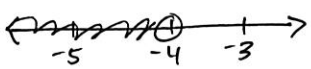
$(5)\frac{n}{5} \leq \frac{1}{5}(5)$

$n \leq 1$



13) $\frac{-4r}{-4} > \frac{16}{-4}$

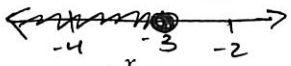
$r < -4$



14) $\frac{x}{5} \leq -\frac{3}{5}$

$(5)\frac{x}{5} \leq -\frac{3}{5}(5)$

$x \leq -3$



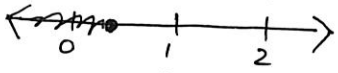
15) $\frac{x}{2} \geq 3$

$(2)\frac{x}{2} \geq 3(2)$

$x \geq 6$

16) $\frac{14v}{14} \leq \frac{6}{14}$

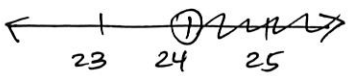
$v \leq \frac{3}{7}$



17) $\frac{b}{8} > 3$

$(8)\frac{b}{8} > 3(8)$

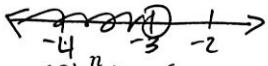
$b > 24$



18) $\frac{x}{6} < -\frac{1}{2}$

$(6)\frac{x}{6} < -\frac{1}{2}(6)$

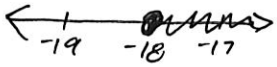
$x < -3$



19) $\frac{n}{3} \geq -6$

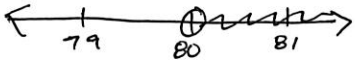
$(3)\frac{n}{3} \geq -6(3)$

$n \geq -18$



20) $\frac{-1x}{-1} < \frac{-80}{-1}$

$x > 80$



21) $\frac{k}{13} \leq 2$

$(13)\frac{k}{13} \leq 2(13)$

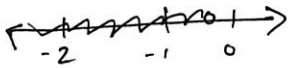
$k \leq 26$

22) $\frac{4x}{4} \geq \frac{-20}{4}$

$x \geq -5$

23) $\frac{6}{-16} < \frac{-10x}{-10}$

$-\frac{3}{5} > x$



24) $\frac{5}{8} > \frac{8n}{8}$

$\frac{5}{8} > n$