

Warm up back of 15

$$(16 \div 2)^2 + 5 - 4$$

(8)²
64 + 5 - 4

(65)

$$3 \cdot 2 - (5 - 2)^2 + 6^2 - 3$$

3²
6 - 9 + 36 - 3

- 3 + 36

(30)

$$\sqrt{25} + |-4| - 3^2$$

5 + 4 - 9

9 - 9

(0)

$$3^3 - \frac{5 \cdot 2 + 8}{9} - |-7 + 4|$$

3 · 3 · 3
27 - $\frac{10 + 8}{9}$ - |-3|

$\frac{18}{9}$
2

25 - 3

(22)

two-step eQuATion MAZE!

homework

Directions: Use your solutions to navigate through the puzzle. SHOW ALL STEPS!!!!

Start!
 $4x + 10 = -26$
 9

$\frac{x}{3} + 10 = 15$
 15

$9 - 2x = 35$
 -13

$\frac{2}{3}x + 15 = 17$
 3

$\frac{x}{7} - 4 = -2$
 9

$\frac{1}{2}x + 13 = 9$
 -8

$\frac{3}{4}x - 9 = 27$
 8

$-5x - 10 = 10$
 -4

$8 - \frac{1}{3}x = 16$
 -24

$-12x - 17 = -89$
 6

$18 - 4x = -2$
 5

$19 - \frac{5}{2}x = 34$
 -5

$28 - 32x = 92$
 7

$5 - x = 12$
 -7

$13 - \frac{3}{2}x = 37$
 -16

END!
 😊

$$\begin{array}{r|l} \cancel{19} - \frac{5}{2}x = 34 & \\ -19 & -19 \\ \hline \cancel{\frac{-2}{5}} \left(-\frac{5}{2}x \right) & (15) - \frac{2}{5} \end{array}$$

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

$$x = -6$$

$$19 - \frac{5}{2}(-6) =$$




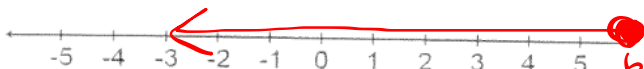
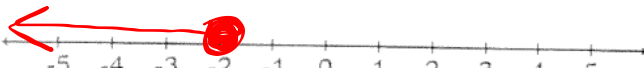
$$19 + 15 =$$

$$19 - 5 \div 2 \times 6 + \dots =$$

Inequalities

→ a range of numbers

	Notes
What is an inequality???	An inequality is a number sentence containing $>$ greater than or $<$ less than ex $5 > 3$ ex $2 < 6$
	\geq greater or equal to \leq less than or equal to
What is the difference between an equation and an inequality?	Unlike an equation, there is an <u>infinite</u> number of solutions called a <u>solution set</u> .
How are solutions to an inequality shown?	Solutions are shown on a <u>number line</u> .
What is unique about inequality graphs?	Inequality graphs have either a <u>open</u> or <u>closed</u> circle and an <u>inequality (arrow)</u> .
How do you graph \leq and \geq ?	Use a <u>closed</u> (solid) circle. This means that the number is apart of the <u>solution set</u> .
How do you graph $<$ and $>$?	Use an <u>open</u> (un-shaded) circle. This means that the number is not apart of the <u>solution set</u> .

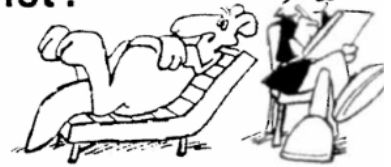
Graph the following :	
$x < 4$	
$x \leq 4$	
How do you solve inequalities?	Inequalities are solved the same as <u>equation</u> .
Solve: $x + 7 > 8$ $\begin{array}{r} x + 7 > 8 \\ -7 \quad -7 \\ \hline x > 1 \end{array}$ (graph the solution)	$x > 1$ $3 + 7 > 8$ $10 > 8$ 
Solve: $n - 4 \leq 2$ $\begin{array}{r} n - 4 \leq 2 \\ +4 \quad +4 \\ \hline n \leq 6 \end{array}$ (graph the solution)	$n \leq 6$ 
$-2 \geq x$ $x \leq 2$	

1

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DD-50

Find the graph of the solution set of any inequality below in the corresponding column of graphs. Notice the letter next to it. Write this letter in each box that contains the number of that exercise. Keep working and you will discover the answer to the title question.



① $x < 1$	(H)	⑩ $x < -1$	(O)
② $x \leq 1$	(Y)	⑪ $-1 < x$	(U)
③ $x > 1$	(S)	⑫ $3 \geq x$	(M)
④ $x \geq 1$	(I)	⑬ $x < 3$	(F)
⑤ $x \neq 1$	(D)	⑭ $x \neq 0$	(E)
⑥ $x < -2$	(L)	⑮ $0 \leq x$	(P)
⑦ $x > -2$	(R)	⑯ $0 \geq x$	(W)
⑧ $x \leq -2$	(G)	⑰ $0 < x$	(J)
⑨ $x \geq -2$	(A)	⑱ $0 > x$	(N)

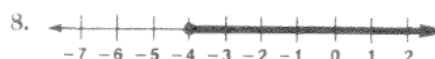
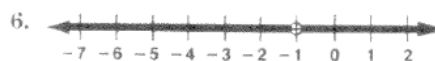
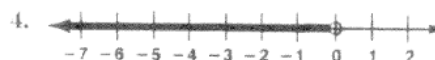
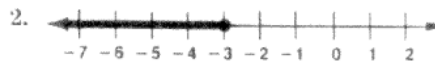
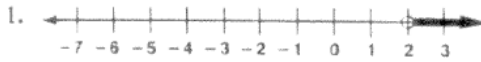
6	16	15	13	11	1	16	7	16	1	15	6	4	6	16	15	5	9	12	16	16	8	2	11	3	9	13	18	10	17	14	4
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Name _____ Date _____

Practice Worksheet 8-2

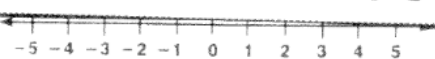
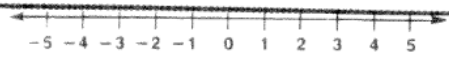
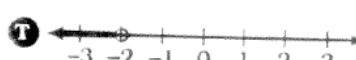
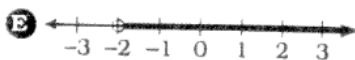
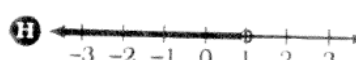
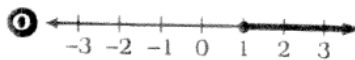
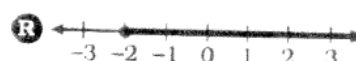
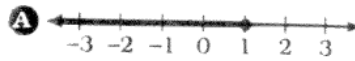
Graphing Inequalities

Write an inequality that describes each graph.



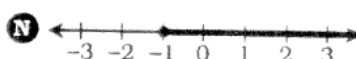
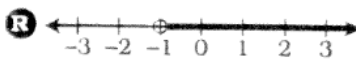
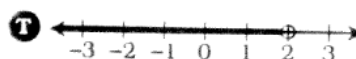
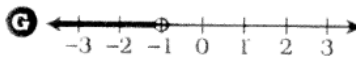
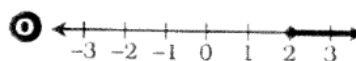
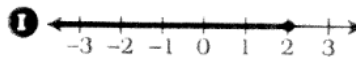
In Exercises 1-6, match the inequality with its graph.

- 1 $x < 1$
- 2 $x \leq 1$
- 3 $x > -2$
- 4 $x \geq -2$
- 5 $-2 > x$
- 6 $1 \leq x$



In Exercises 1-6, match the inequality with its graph.

- 1 $x < 2$
- 2 $x \leq 2$
- 3 $x > -1$
- 4 $x \geq -1$
- 5 $-1 > x$
- 6 $2 \leq x$



After Quiz:

work on inequality practice HW

IXL 6th Grade

AA.1, AA.2, AA.3