

Name: _____

Block: _____ Date: _____



Two-Step Inequalities

When solving 2 – step inequalities:

+/- FIRST, move the _____

x/÷ SECOND, move the _____

Golden Rule of Algebra:

What is the constant that I need to move first?

1) $4x - 9 < 21$

2) $4 - 5r > 36$

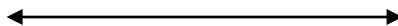
3) $15 \geq 2w + 17$

Examples:

1) $2y - 4 \leq -28$



2) $\frac{t}{-10} - 2 \geq -4$



3) $-12r + 20 > -16$



4) $4m + 18 < -18$



Two Step Inequalities Practice

1) $\frac{m}{2} + 13 \geq 8$



2) $\frac{y-7}{3} < 10$



3) $3p - 12 \leq -6$



4) $11 + \frac{m}{4} \geq -41$



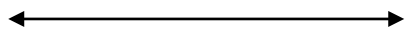
5) $4 < 6y - 32$



6) $10 \geq -6m - (-4)$



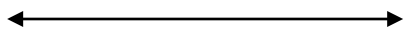
$$7) \frac{m}{-8} + 7 \geq 11$$



$$8) \frac{2}{5}n - 4 \leq 16$$



$$9) 11y + 6 > -115$$



$$10) \frac{1}{4}x - 9 < -5$$



Homework

Solve & Graph

1) $2y - 5 \leq -29$



2) $\frac{t}{-11} - 5 \geq -9$



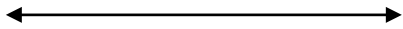
3) $-13r + 14 > -12$



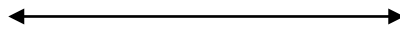
4) $12m - 24 < -84$



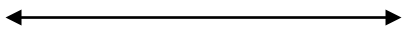
5) $25 < 5n + 30$



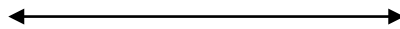
6) $-12x + 60 > 48$



7) $\frac{3}{4}n + 12 \geq -36$

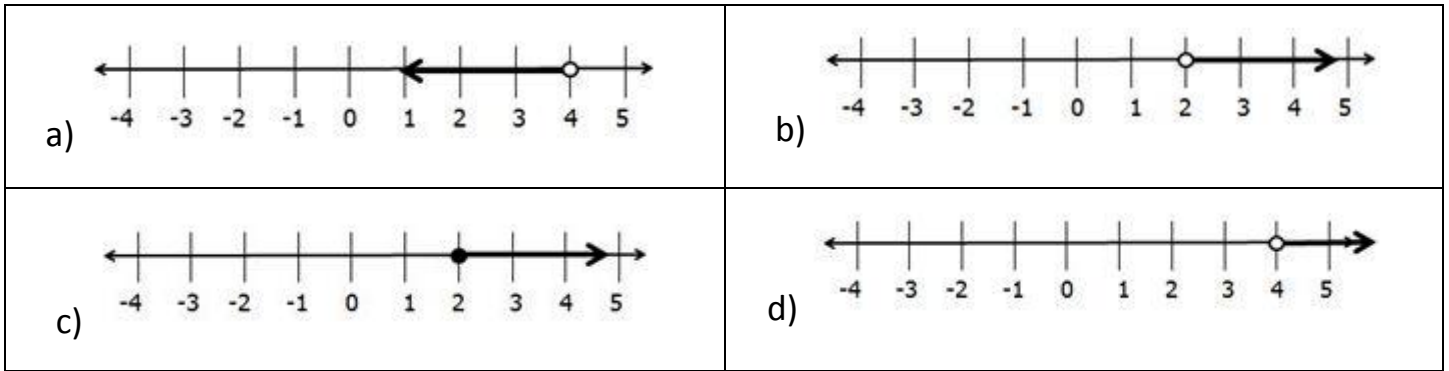


8) $\frac{w}{3} + 21 < 28$



9) Which number line shows the correct solution to $7y - 9 > 5$?

Solve the inequality to find the right graph.



10) Write an inequality that could be used to represent all the solutions for x:
The five and a number added to six is greater than or equal to 26.

11) Write an inequality that could be used to represent all the solutions for x:
The quotient of a number and three minus twelve is less than 12.

12) Which is a value for h that makes the following true?

$$-3h + 6 \geq 24$$

-5
7
-7
5

13) Which is a value for r that makes the following true?

$$-12 + r > 24$$

-13
13
37
-37

14) For which inequality is 7 a solution?

$12 > 4 + 2p$	$12 > -4 + 2p$	$-12 > 4 - 2p$	$-12 > 4 + 2p$
---------------	----------------	----------------	----------------