

Solving Multi-Step Inequalities

Agenda

Warm-Up - Wheel
Spin

Activity: Verbal
Matching Cards

Notes p.21

HW: Practice #1-12

Reminders

TEST Thursday

Test 1 Corrections
due Wed 5PM

Essential Question

How do I translate
words into algebraic
inequalities?

"Warm-Up"

Turn in your homework RIGHT
NOW! The wheel will be spun when
the timer goes off, any late
homework is graded on ACCURACY.



2nd -
comp.

3rd -
accuracy

4th
accuracy.

5th
FREE

Reminders

Have out your planners, etc.

Monday	Tuesday	Wednesday	Thursday	Friday
22	23 Tutoring 8:15-9AM	24 Tutoring 8:15-9AM 4:15-5PM Test 1 Corrections due by 5PM	25 TEST Tutoring 8:15-9AM Last time to turn in HW 12, 13, 14 Quiz Reflection Due	26 Tutoring 8:15-9AM HW 15 Due No late 15's accepted
29	30 Tutoring 8:15-9AM	10/1 Tutoring 8:15-9AM 4:15-5PM Test 2 Corrections due by 5PM	2 End of 1st six weeks	3

Solving Multi-Step Inequalities p.21

Essential Question

How do I translate words into algebraic inequalities?



Glue at the TOP of p.21. Leave space to solve problems on the bottom half of the page.

Solving Multi-Step Inequalities p.21

Essential Question

How do I translate words into algebraic inequalities?

Match each pink card to the corresponding yellow card.



Now fill out the foldable. What word(s) told you the correct inequality symbol to use?

Solving Multi-Step Inequalities ^{equal} p.21

Essential Question

How do I translate words into algebraic inequalities?

less than

is less than
is fewer than

greater than

is greater than
is more than

phrase Bank

is \rightarrow equal

less than
—

is at most

is less than or equal to

is no more than

is at least

is no less than

is greater than or equal to

Solving Multi-Step Inequalities p.21

Essential Question

How do I translate words into algebraic inequalities?

1. $2x + 11 \leq 19$

$$\begin{array}{r} -11 \quad -11 \\ \hline 2x \leq 8 \\ \hline x \leq 4 \end{array}$$



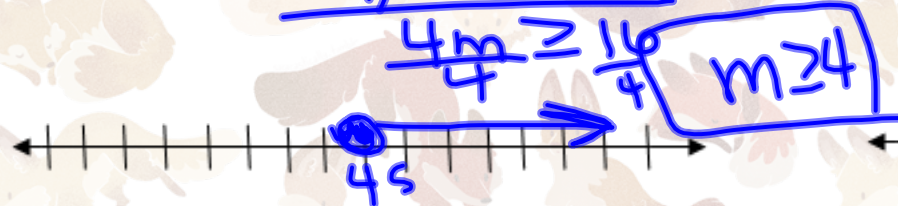
2. $-2 - 3x \geq 7$

$$\begin{array}{r} +2 \quad +2 \\ \hline -3x \geq 9 \\ \hline x \leq -3 \end{array}$$



3. $6m - (2m + 3) \geq 13$

$$\begin{array}{r} 6m \quad -2m \quad -3 \geq 13 \\ \hline 4m - 3 \geq 13 \\ \hline +3 \quad +3 \\ \hline 4m \geq 16 \\ \hline m \geq 4 \end{array}$$



4. $\frac{-2x - 7}{5} \geq 9 \cdot 5$

$$\begin{array}{r} -2x - 7 \geq 45 \\ \hline +7 \quad +7 \\ \hline -2x \geq 52 \\ \hline -2 \quad -2 \\ \hline x \leq -26 \end{array}$$



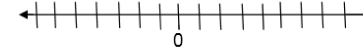
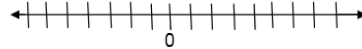
Algebra I - Unit 1: Topic 2 – Solving Multi-Step Inequalities

Practice - Solving Multi-Step Inequalities**pp 188-190**

Solve the following inequalities. Graph each answer on the number line provided.

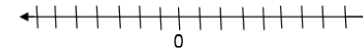
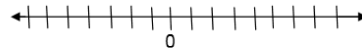
1. $-11 - 9x > -47$

2. $7a - 5 < 9$



3. $10c + 11 < 5 + 8c$

4. $4n - 6 \geq 6n - 20$



Solve each inequality and check your answer.

5. $5p - (p - 6) \leq 0$

6. $15 > \frac{2m}{3} - 1$

7. $\frac{t+3}{2} < -8$

8. $\frac{-3x-1}{5} < 4$

Define a variable, write an inequality, and solve each problem. Then check your solution.

9. Two-thirds of a number decreased by 27 is at least 9.

10. The sum of a number and 84 is greater than the product of -3 and the same number.

11. Carol is buying asparagus and bananas at the grocery store. Asparagus costs \$3.00 per pound and bananas cost \$0.50 per pound. Which inequality best represents the number of pounds of asparagus,
- a
- , and bananas,
- b
- that Carol can purchase with at most \$20.00.

A $3a + 0.5b < 20$
B $3a + 0.5b > 20$

C $3a + 0.5b \leq 20$
D $3a + 0.5b \geq 20$

12. The county water department charges a monthly administrative fee of \$10.40 plus \$0.0059 for each gallon of water used. Glen's family always pays more than \$35 each month for water. Which inequality best represents the number of gallons of water,
- g
- , Glen's family uses each month?

A. $10.4g + 0.0059 > 35$
C. $0.0059g + 10.4 > 35$

B. $10.4g - 0.0059 < 35$
D. $0.0059g - 10.4 < 35$

some statistics...and an assignment

Quiz 2 Averages:

2nd - 70

3rd - 64

4th - 62

5th - 57

Quiz 2 Reflection DUE THURSDAY 9/25

Write answers to the following reflection questions on the back of quiz 2, or on a separate sheet of paper stapled to your quiz. Answer questions truthfully, thoughtfully, and completely.

1. Are you satisfied with your quiz score? Why or why not?
2. What did you do to prepare for the quiz?
3. How can you prepare differently for the next assessment?
4. Re-work and find the correct answer to all problems you missed (even if you received partial credit). Work should be organized logically and be easy to follow. You may use any resource to help you; i.e. your teacher, your notebook, the internet, etc., but your goal is to make sure you understand and can work similar problems in the future.

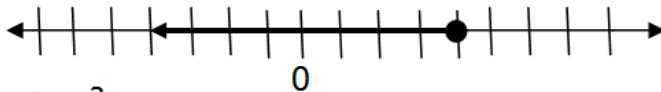
This assignment is a one-time deal and is due on or before Thursday 9/25 NO EXCEPTIONS.

HW Check

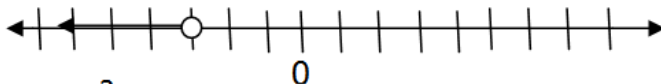
Solving Multi-Step Inequalities

Answers:

1. $x < 4$



3. $c < -3$

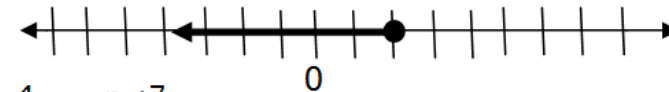


5. $p \leq -\frac{3}{2}$

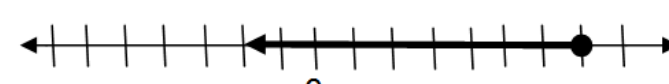
6. $m < 24$

7. $t < -19$

2. $a < 2$



4. $n \leq 7$



8. $x > -7$

9. $x \geq 54$

10. $n > -21$

11. C

12. C