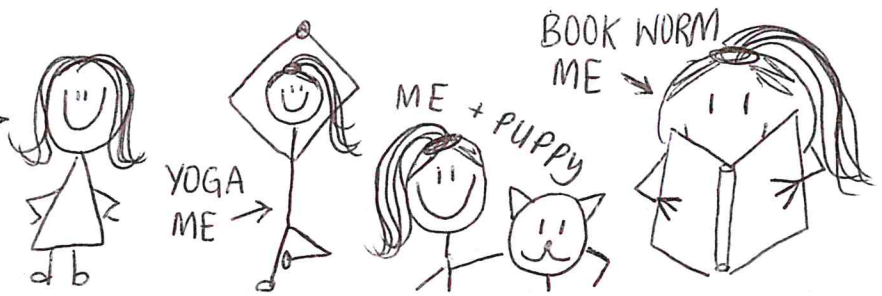


Hello Everyone!



Welcome to Week 4 of Home-School! WEEK FOUR! I cannot believe it has been four weeks since I have seen you all 😞 😵 WHAT IS TIME these days??



You have had four weeks now to get into your own Home-School routine. I have heard from many of you about how this is going. Some are doing very well (even better than working at school!), some are still figuring out the perfect routine. Some of you are finding it very difficult.

It is okay for us all to be at different places. I recognize this will look different for each of you.



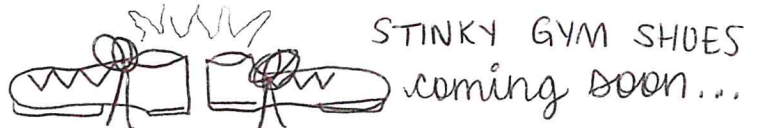
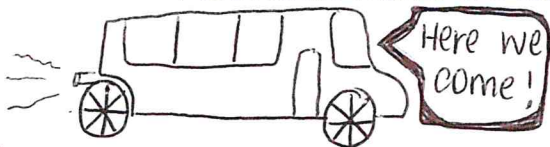
Some of you are not yet ready for this week's package of new work - that is okay! Put it aside! Don't touch it yet. The priority is for you to start from the beginning. Start wherever you left off.

Due dates are a flexible concept these days. If you are unsure about where to begin, or what you should be doing, send me a message on Teams, email or by phone!

Last week, Sunrise School Division sent home a letter with some new information. Some highlights of this letter are:



- K-12 students are expected to continue learning at home
- Bus drivers will be starting to deliver + pick up student work packages
- Student personal items from lockers and classrooms will be delivered home
- A divisional "homework hotline" will be created soon
- 9-12 student marks are only increasing from March 20th



Please make sure you are checking Microsoft Teams, the school website and/or the PVS PAC Facebook page often for updates!



My latest stay-at-home hobby has been teaching myself computer coding. There are many free apps available to teach beginner coding! If you are interested in learning how the internet and computers work, check out these apps:

SoloLearn: Learn to Code, Codecademy Go, or Py – Learn to Code!

I hope you are healthy and happy and nerding out learning every day!

Ms. Burns



9 Math

Tuesday, April 14th - Tuesday, April 21st

- Review your previous weekly schedules. What have you not done yet? This is where you start!
- Organize all work that needs to be handed in. This is all yellow assignments, and your U3 Test.
- U4:L3**
- U4:L4**
- U4:A2**

Suggested Schedule:

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Catch up on what you have not yet finished!	U4:L3	U4:L4	U4:A2	U4:A2
MONDAY	TUESDAY			
Review Everything	*Next package arriving* HAND-IN WORK TO BUS DRIVER!			

*****REMEMBER: I am available every day 9AM-4PM for video chats, Teams messaging, phone calls and emails! Please contact me with all your questions!*****

9 MATH

U4: Algebra

Booklet Two

April 13th — April 20th

NAME: _____



"Mr. Osborne, may I be excused? My brain is full."

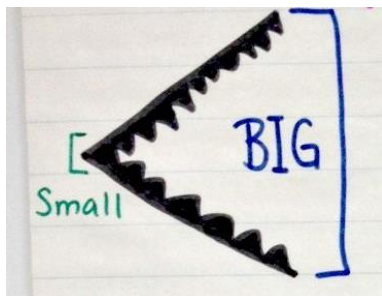
Make sure to email me or send messages on Microsoft Teams with whatever questions you have!

U4:L3 Inequality Symbols

Remember the following symbols are used to represent how you compare a variable to a certain number given...

Greater than	$>$	Greater than or equal to	\geq
Less than	$<$	Less than or equal to	\leq
Not equal to			\neq

Remember the smaller “arrow” points to the smaller number. The bigger end is at the bigger number...

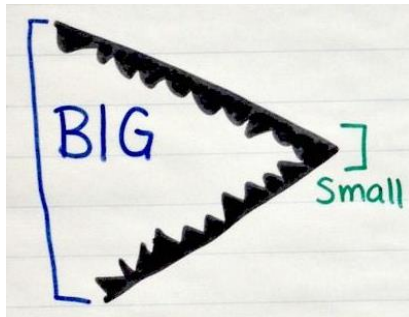


EXAMPLES:

$$0.5 < 0.6$$

$$99 < 108$$

$$-3 < w$$



EXAMPLES:

$$100 > b$$

$$\frac{1}{2} > \frac{1}{4}$$

$$0.045 > 0.042$$

The double line on the bottom identifies that the number is **equal to or bigger than or equal to or less than**.

EXAMPLES:

$5 \leq x$ = “5 is equal to or less than x” OR “x is equal to or greater than 5”

$a \geq 33$ = “a is greater than or equal to 33” OR “33 is equal to or less than a”

PRACTICE!

Translate the following words into inequalities with numbers and symbols:

1) 5 is not more than x

3) x is greater than or equal to 12

5) Value of x is greater than 7

7) x is not more than 13

9) Value of x is atleast 1

11) Value of x is less than or equal to 10

13) 16 is less than x

15) Value of x is not greater than 18

2) Value of x is greater than or equal to 14

4) 6 is not less than x

6) x is greater than 15

8) 9 is less than or equal to x

10) Value of x is less than 14

12) x is more than 3

14) Value of x is atmost 8

16) 2 is more than x

Inequalities create **sets** of numbers.

The “rule” that is given, implies that there are numbers that:

- Belong to this set (the variable **CAN** equal these numbers)
- Do not belong to this set (the variable **CANNOT** equal these numbers)

Circle the numbers that belong in the set created by the inequality:

1.

$$y < 2.7$$

Which numbers are in the solution set for y ? (Circle all that apply.)

2.8 2.7 2.07 2.71 0 2.69

2.

$$2\frac{1}{2} \geq h$$

Which numbers are in the solution set for h ? (Circle all that apply.)

$2\frac{1}{4}$ $\frac{1}{2}$ $2\frac{1}{2}$ $3\frac{1}{4}$ $2\frac{3}{4}$ $\frac{1}{4}$

3.

$$k \geq -3$$

Which numbers are in the solution set for k ? (Circle all that apply.)

-4 0 -3 3 1 4

4.

$$23.23 > z$$

Which numbers are in the solution set for z ? (Circle all that apply.)

23.32 23.33 23.22 32.32 22.23 222.33

5.

$$t \leq -8\frac{1}{4}$$



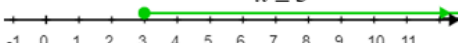
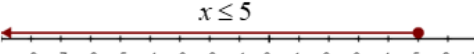
Which numbers are in the solution set for t ? (Circle all that apply.)

$-8\frac{3}{4}$ $8\frac{1}{2}$ $-8\frac{1}{4}$ 7 -9 8

U4:L4 Graphing Inequalities

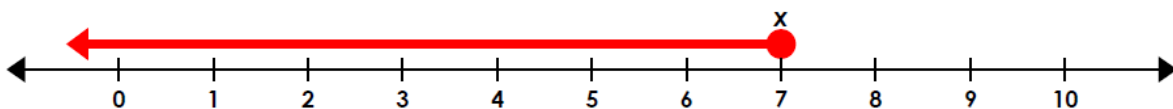
We can also represent inequalities on number lines.

- Empty circles means the number is **NOT INCLUDED** ($<$ or $>$)
- Filled circles means the number **IS INCLUDED** (\leq or \geq)
- The arrow points in the direction that are **ALLOWED** values.

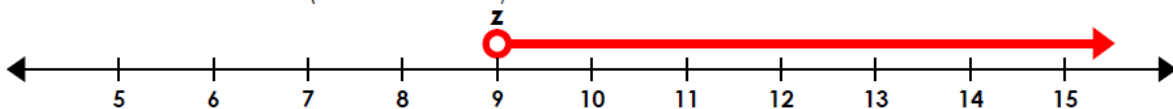
Symbol	Words	Example
$>$	Greater than	$x > 5$ 
$<$	Less than	$x < -1$ 
\geq	Greater than and equal	$x \geq 3$ 
\leq	Less than and equal	$x \leq 5$ 

It is important to include the **ARROW** (\rightarrow) at the end of your line. It signifies that the inequality continues to larger or smaller values not shown on the number line.

examples: $x \leq 7$ (x is less than or equal to 7)



$9 < z$ (9 is less than z)



On an inequality graph, an **open circle** is used for **greater than** and **less than**. A **filled circle** is used for **greater than or equal to** and **less than or equal to**.

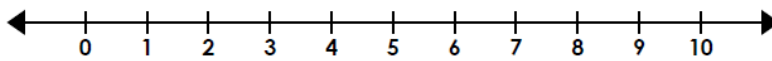
PRACTICE!

***It is important to make sure your circles and arrows are VERY CLEAR!

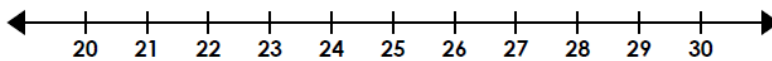
We need to be able to see if the circles are filled or not!

Write each inequality in words. Then graph each on the number line using a red colored pencil or crayon.

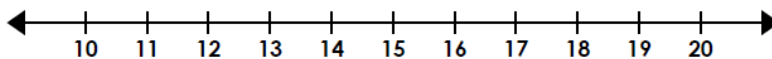
1. $a \geq 3$ word form: _____



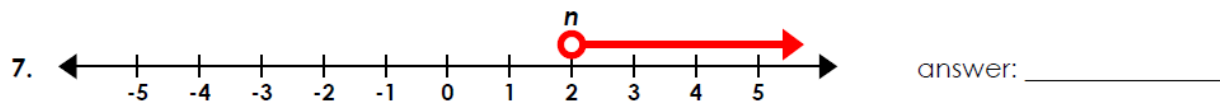
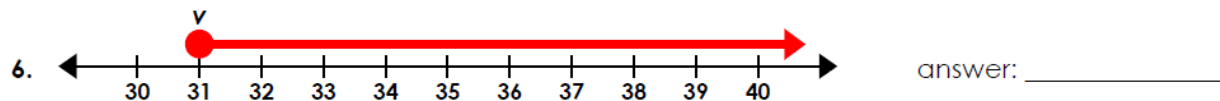
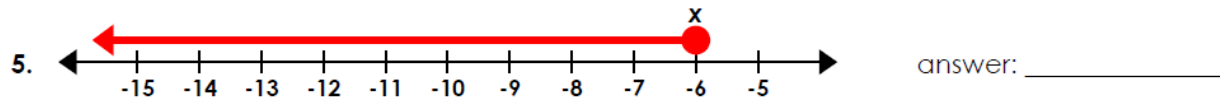
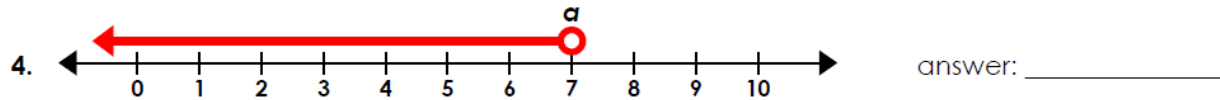
2. $25 > q$ word form: _____



3. $t \leq 17$ word form: _____



Write the inequality shown by each number line.

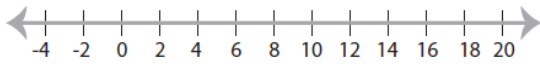


Inequalities can be solved the same way we solve equations.

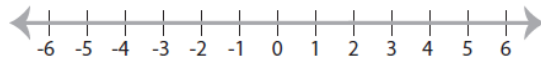
- Do the opposite operation
- Do the same to both sides
- The difference between equations and inequalities is that you need to remember to include the proper symbol (not =)

Solve each inequality and then graph the solution:

1) $\frac{x}{2} + 3 > 9$



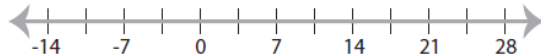
2) $4x + 5 \leq 13$



3) $7x - 19 < 16$



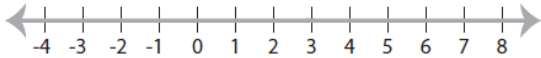
4) $\frac{x-4}{5} \geq 2$



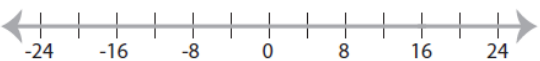
5) $9 + 3x > 12$



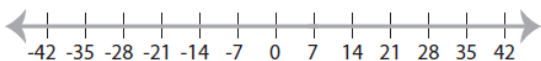
6) $3x - 4 \leq 5$



7) $\frac{x}{8} + 1 < 3$



8) $2x + 5 \geq 19$



NAME: _____

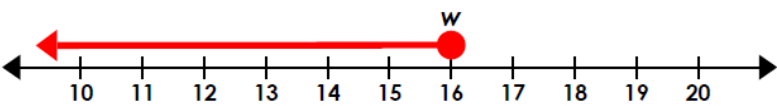
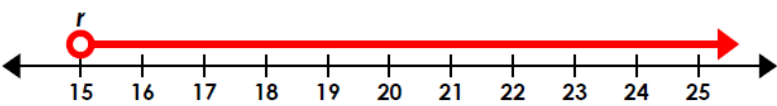
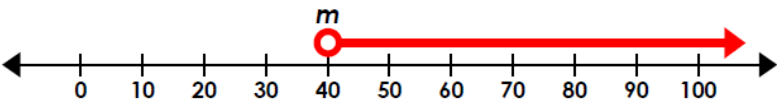
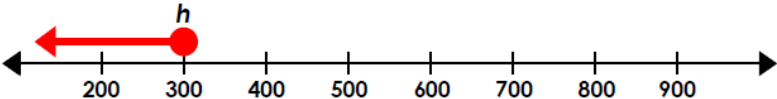
U4: A2 Inequalities

29

Re-write each sentence in algebraic form (numbers and symbols):

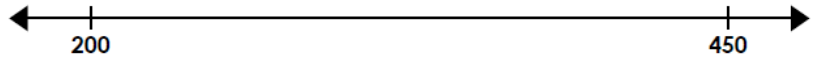
1. a is more than 99. _____
2. p is 100 or less. _____
3. z is not less than 5. _____
4. 20 is equal to or greater than h . _____
5. 2 is less than or equal to r . _____

Write the inequality shown by each number line:

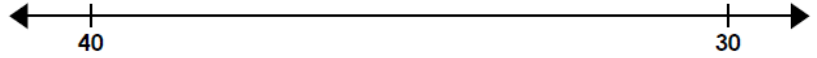
6.  answer: _____
7.  answer: _____
8.  answer: _____
9.  answer: _____

Graph each inequality on the number line:

10. $e \geq 350$



11. $35 \geq p$



12. For the inequality $c \geq 76$, Tami says 80 and 100 are both solutions. Is she correct? Explain why or why not.

13. For the inequality $12 > d$, Jarod says 9 and 12 are both solutions. Is he correct? Explain why or why not.

14. Solve for the variable. Show your work:

$$\frac{x}{5} + 6 < 2$$

$$5x - 13 > 2$$

$$7 \geq 3x + 4$$

$$7x + 1 \leq 15$$

$$13 > 5x - 7$$

$$\frac{4+x}{6} \geq 2$$