Review Unit 1

Agenda

Warm-Up

HW ?s

Kahoot

HW: Study & finish your review!

Reminders

See next slide

Warm-Up (Wed. box)

1. Diane wants to buy some new clothes for school. The shirts cost $24 and the pants cost $40. Write an inequality that represents the number of shirts, s, and pants, p, that Diane can buy with no more than $175.

$24s + 40p \leq 175$

at least $\geq$ / at most $\leq$

2. Set up an inequality, then solve. Three times a number increased by four is at least the same number added to sixteen.

$3x + 4 \geq x + 16$

$-4 \quad -4$

$3x \geq x + 12$

$-x \quad -x$

$\frac{2x}{2} \geq \frac{12}{2}$

$x \geq 6$

Reminders

Have out your planners, etc.

Monday	Tuesday	Wednesday	Thursday	Friday
~~22~~	~~23~~ Tutoring 8:15-9AM	24 Tutoring ~~8:15-9AM~~ 4:30-5:15PM Test 1 Corrections due by 5:15PM	25 TEST Tutoring 8:15-9AM Last time to turn in HW 1.2, 1.3, 1.4 Quiz Reflection Due	26 Tutoring 8:15-9AM HW 1.5 Due No late 1.5'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

@MSKmath

Algebra I - Unit 1: Topic 4 – Compound Inequalities

Practice: Compound Inequalities **pp 202-205**

Write the compound inequality shown by each graph.

1. 

2. 

Solve each compound inequality and graph the solutions.

3. $-15 < x - 8 < -4$

4. $12 \le 4n < 28$

5. $-2 \le 3b + 7 \le 13$

6. $5 < 3x - 1 < 17$

7. Which of the following is a solution of $-1 < x - 3 < 2$?

A 2 B 3

C -2 D 5

Write a compound inequality for each problem. Graph the solutions.

8. The temperature in a pet iguana's cage should be between 70° F and 95° F, inclusive.

$70 \le X \le 95$

temp

9. Water is a liquid if its temperature is less than 100°C and greater than 0°C.

$t < 100$

$t > 0$

$0 < t < 100$

10. A tropical fish requires a water temperature between 68° F and 77° F, inclusive. An aquarium is heated 8 degrees so that a Tetra can live in it. What temperatures could the water have been before the heating?

$68 \le X + 8 \le 77$

$-8 \quad -8 \quad -8$

$60 \le X \le 69$

11. Nathan will be working between 30 to 39 hours, inclusive, this week which is triple what he worked last week. How many hours did Nathan work last week?

Review Unit 1

Get out your internet-capable device!

Remember:

- School-appropriate, easily identifiable screen names.
- Do not leave your kahoot window - if I see you texting/ snapchatting/etc, you will not be allowed to continue playing.
- These are review questions - have your review out to write solutions.
- Top 5 at the end of the game get bonus points on the test!
- Complete review solutions will be posted on twitter after school and taped outside my door.

Foundations of Algebra
Unit 1 T1 – T4 Review

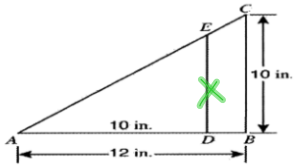
Name: _____

1. Solve the following equation $-2(2a+7)+2=-6a$.

2. The RHS Art Magnet was ordering art supplies that they would need this year in class. Each student ordered a 6 inch paint brushes that cost $2.75 and a paint tray that cost $1.50. If x represents the number of students in the art magnet, which equation can be used to find y, the total amount of money that the magnet spent on art supplies?

A. y = 2.75 + x + 1.50
B. y = 4.25 + x
C. y = x + 2.75
D. y = 4.25x

3. The triangles are similar. Approximate length of DE.

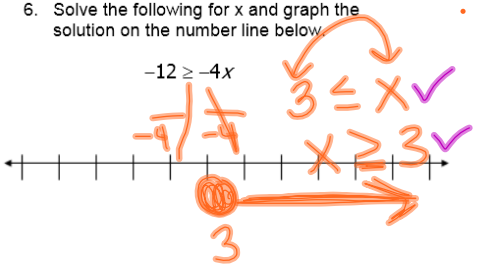


4. Write the following expression in simplest form: $4(x+2)-(2x-1)+10$.

5. At DFW Airport, 8 planes land every 6 minutes. At Love Field airport 5 planes land every 12 minutes. How many more planes land in an hour at DFW airport than at Love Field airport?

6. Solve the following for x and graph the solution on the number line below.

$-12 \geq -4x$



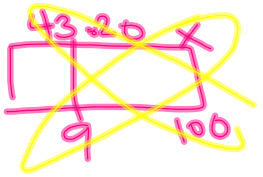
7. Mrs. Himler solved the following equation using the steps shown below.
What operation did she perform to get from Step 2 to Step 3?

Step 1	2(x + 5) = x - 1
Step 2	2x + 10 = x - 1
Step 3	x + 10 = -1
Step 4	x = -11

8. Which situation best represents the expression 3x + 12?

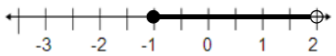
A. The amount of money Alberto earns if he mows 3 yards at $12 each and weeds x flower beds.
B. The total bill for 3 people to eat dinner if each meal costs $12.
C. Jose bought 3 shirts at x dollars each and a pair of sunglasses for $12.
D. The number of tickets purchased for $12 each in the first 3 rows if they buy x number of seats.

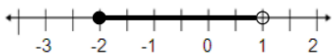
9. Alexandria paid 9% tax on a new iPhone 5. She paid $43.20 in taxes. What was the selling price of her new phone?

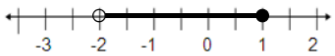


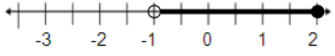
10. The perimeter of a rectangle is 46 cm. The length is (3x+3) and the width is (x-4). Solve for x and find the length of each side.

11. Which number line below matches the inequality $-1 \leq -3x + 2 < 8$?

A.


B.


C.


D.


Name three solutions to the inequality in #11: _____, _____, _____

12. Anna helps her grandmother at the Farmer's Market. A mixed variety of apples are sold in crates of 20. In each crate of 20, there are usually 3 Granny Smith apples. If Anna sells 15 crates of apples, how many Granny Smith apples did she sell? What percent of the total apples Anna sold were not Granny Smith?

13. Solve the equation $\frac{-2x+3}{5} > 3$ for x.

14. Write an equation to find the measure of two complementary angles when the measure of one angle is nine less than twice the other?

$x + 2x - 9 = 90$

$3x - 9 = 90$

$90 < \text{obtuse} < 180$

15. If an obtuse angle is $(4x - 10)°$, which of the following could be values of x?

A. x = 12 $4(12)-10 = 38°$

B. x = 25 $4(25)-10 = 90°$

C. x = 35

D. x = 50

$90 < 4x - 10 < 180$

$35 < x < 47.5$

16. Solve the following for z: $2z - 3y = 10$

17. Oscar buys a shirt for *x* dollars. The tax on the shirt is 8.25%. Which of the following expressions represents the price Oscar will pay when checking out?

A. $x + 8.25x$

B. $x + 0.0825x$

C. $x + 0.0825$

D. $x + 8.25$

8.25%

18. Given the equation $5x - 4y = 10$ what is the value of x when y = 2.

19. The length of each leg of an isosceles triangle is 4 more than three times the length of the base. The perimeter of the triangle is 57 inches. Find the length of each side of the triangle.

20. The ratio of boys to girls in Mrs. Breckling's math class is 8:7. If Mrs. Breckling has a total of 90 students, predict how many students will be boys.

21. In which step does a mistake first appear in simplifying the expression $0.5(-12c + 6) - 3(c + 4) + 10(c - 5)$?

Step 1: $-6c + 3 - 3(c + 4) + 10(c - 5)$

Step 2: $-6c + 3 - 3c - 12 + 10(c - 5)$

Step 3: $-6c + 3 - 3c - 12 + 10c - 50$

Step 4: $7c - 41$

A. Step 1
B. Step 2
C. Step 3
D. Step 4