Unit 1 Review

Agenda

warm-up

hw check

kahoot

review

work time

Reminders

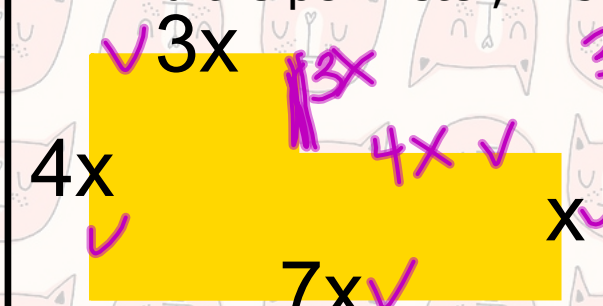
test tomorrow

notebook check tmr

hw 1.3 due tmr!

Warm-Up Thursday

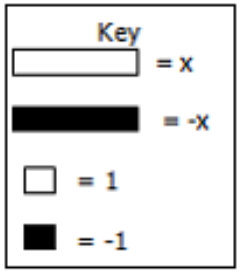
1. Find the perimeter, in simplified form, in terms of x.

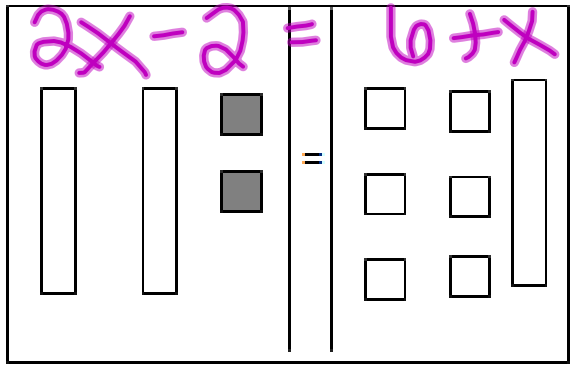


$3x+4x+7x+4x+4x+3x$

$22x$

2. What equation do the following algebra tiles represent?





$2x-2=6+x$

$-x \quad -x$

$x-2=6$

$+2 \quad +2$

$x=8$

□ = □□□□
□□□□

Homework Check

1. $m = \frac{F}{a}$

2. $r = \frac{C}{2\pi}$

3. $-\frac{(t-g)}{0.0035} = a$

4. A. $\frac{(c-215)}{5} = p$ B. 17 people

5. $r = 7 - ax$

6. $c = \frac{-4p}{9}$

7. $a = c + \frac{1}{3}b$

8. $\frac{2s}{t^2} = g$

9. D

10. A. $V = \frac{m}{d}$ B. $12cm^3$

Algebra I - Unit 1: Topic 2 – Literal Equations

Practice - Literal Equations **pp 107-108**

Name _____ Date _____ Per _____

1. The formula $F = m \bullet a$ can be used to find the force, F, of an object when given it's mass, m, and it's acceleration, a. Solve this formula for an object's mass.

2. The formula for the circumference of a circle is $C = 2\pi r$. Solve the formula for r.

3. For altitudes up to 36,000 feet, the relationship between temperature and altitude can be described by the formula $t = -0.0035a + g$. Solve this formula for a.

4. The formula $c = 5p + 215$ relates c, the total cost in dollars of hosting a birthday party at Pizza Palace, to p, the number of people attending.

   A. Solve the formula for p.

   B. If Allie's parents are willing to spend $300 for a party, how many people can attend?

Solve the following:

5. $ax + r = 7$ for r

6. $5p + 9c = p$ for c

7. $a - \frac{1}{3}b = c$ for a

8. $s = \frac{1}{2}gt^2$ for g

9. Which of the following is a correct method for solving $2a - 5b = 10$ for b?

   A Add $5b$ to both sides, then divide both sides by 2
   B Subtract $5b$ from both sides, then divide both sides by 2
   C Divide both sides by 5, then add $2a$ to both sides
   D Subtract $2a$ from both sides, then divide both sides by -5.

10. The density of an object can be calculated using the formula $d = \frac{m}{V}$, where m is the mass of the object and V is the volume of the object.

    A. Solve the formula for V.

    B. If an object has a mass of 30 grams and a density of $2.5\frac{g}{cm^3}$, what is the volume of this object?

Unit 1 Review

Get out your internet-capable device. I have a few that I can loan out - please raise your hand and wait patiently.

Open your browser to kahoot.it

have your review out. Some questions will come directly off the review. Others you may work out on the table or a piece of scratch paper.

Foundations of Algebra Test
Algebra 1 Unit 1 T1-T2 **Review**

Name _____

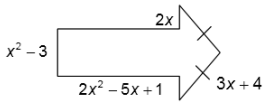
1. Evaluate $\frac{6a-b^2}{c}$ for $a=\frac{1}{2}$, $b=-1$, and $c=8$

$\frac{6(\frac{1}{2})-(-1)^2}{8}=\frac{3-1}{8}=\frac{2}{8}$

2. Simplify the algebraic expression
$3(x-1)-4(2x+2)$

A $11x-7$
B $-5x-11$
C $5x+1$
D $-x-11$

3. Find the perimeter, in simplified form, in terms of x.



4. Which situation is best represented by the algebraic expression $65+32x$?

A Susie owes money to her parents. She initially gave them \$65 and has agreed to pay \$32 a month until she has paid them completely.

B Paula needs an electrician to fix her outlet. The electrician charges \$32 to come to her house and an additional \$65 per hour.

C Lisa has \$65 in her checking account and spends thirty-two dollars a week.

D The set up fee for making T-shirts is \$32. The cost of each shirt is \$65.

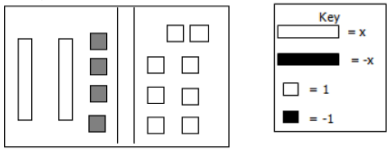
5. Write an expression equivalent to the product of five and a numbered squared.

6. Shannon has spent \$850 on gasoline and repairs for her car in the last 6 months. Of this total, she spent \$300 on repairs. The gasoline she purchased cost \$1.29 per gallon. Which of the following can be used to determine how many gallons of gas, g, Shannon has bought within the last 6 months?

A $1.29g-300=850$
B $1.29g+300=850$
C $1.29-300g=850$
D $1.29+300g=850$

7. Jeff receives 7% commission for every home he sells. If he received \$9800 in commission for the last home he sold, what was the selling price of that home?

8. What equation do the following algebra tiles represent?



9. Draw the solution of the equation in #8 using algebra tiles.

$x+4x+15=180$
$5x+15=180$

10. The measure of an angle is 75° more than its supplement. Find the measure of each angle.

11. Kenny's scores on his last 5 math tests are 85, 92, 81, 92, and 80. What is the score he must get on the next test if he wants his average to be exactly 86?

$\frac{85+92+81+92+80+x}{6} = 86$

$430 + x = 516$

$-430 \quad -430$

$x = 86$

12. The angles of a triangle are 2x°, (3x+1)°, and (x+5)°. Find the measure of each angle.

13. Diego solved the following equation using the steps shown below.

Step 1 $3x + 6 = x + 18$
Step 2 $2x + 6 = 18$
Step 3 $2x = 12$
Step 4 $x = 6$

What operation did he perform to get from Step 1 to Step 2?

A Added x to both sides of the equation

B Divided both sides of the equation by 2

C Multiplied both sides of the equation by 2

D Subtracted x from both sides of the equation

14. Solve the equation $-3(5 + 2a) + 4 = 5a$ for a.

15. Solve the equation $\frac{3}{4}k - 5 = 10$ for k.

$+5 \quad +5$

$4 \cdot \frac{3}{4}k = 15 \cdot 4$

$\frac{3k}{3} = \frac{60}{3}$

$k = 20$

Solve the following equations:

16. $-3(x - 2) = -6$

17. $2(x - 8) + 3 = 17$

18. Solve the following equation for y:
$2x - 3y = 9$

19. The formula for the circumference of a circle is $C = 2\pi r$. Solve the formula for r.

20. Solve $d = \frac{1}{2}gt^2$ for g

Unit 1 Review

A completed review is worth bonus points on the test. If you have last minute questions I will be here at 8:30am tomorrow. Solutions will be posted outside my door by 4:10pm, on twitter, and on my website.

@mskmath http://www.mskmathrhs.weebly.com

I will also be checking notebooks tomorrow. When you come into the room, turn in your review and hw 1.3 to your class tray and then turn your notebook in to your class bin (2nd - blue, 3rd - green, 4th - orange, 5th - pink) at the front of the room. any notebooks not in the bin when I start grading will be considered late.