

Good Afternoon!

Today you will need:

- Review packet
- correcting pen
- bright green Learning Chart
- pencil
- planner (on the floor)

Class Time

Use your time wisely to finish the last page of the Unit Test Review packet.

We will be correcting the packet at _____.

If you finish early, you can:

- work on Test Practice worksheets
- re-do homework or Learning Check problems that you got wrong

1. Use the Distributive Property to write each expression in expanded form.

a. $9(1 + 8x)$
 $9 + 72x$

b. $6(-5x + 8)$
 $-30x + 48$

c. $-8(4x + 5)$
 $-32x - 40$ or $-32x - 40$

d. $-9(7x - 10)$
 $-63x + 90$ or $-63x + 90$

2. Use the Distributive Property to write ALL the possible expressions in factored form.

a. $-8x + -14$
 $-2(4x + 7)$

b. $14x + 70$
 $2(7x + 35)$
 $7(2x + 10)$
 $14(x + 5)$

c. $54x - 36$
 $2(27x - 18)$
 $3(18x - 12)$
 $6(9x - 6)$
 $9(6x - 4)$

3. Simplify the following expressions completely.

a. $5x - 1 + 5 - 10x$
 $-5x + 4$

b. $-5(-6 + 3x) + 4x$
 $30 + 15x + 4x$
 $-11x + 30$

c. $9(6x - 8) + 9(-x + 6)$
 $54x - 72 + -9x + 54$
 $45x - 18$

d. $-10(7 + 6x) + 4(3x + 7)$
 $-70 + -60x + 12x + 28$
 $-48x - 42$

4. Julie takes 3 friends to the nail salon. Each person gets a pedicure and has a four-leaf clover painted on their toenail. Let p represent the cost of a pedicure and c represent the cost of a painted clover.

a. Using the distributive property, write TWO equivalent expressions that represent the total amount of money spent at the salon for all 4 people.

① $4(p + c)$

② $4p + 4c$

b. Explain how each expression describes the situation in a different way.

Expression 1:
this adds the cost of 1 pedicure and 1 painted clover, and then multiplies it by 4 people

Expression 2:
this adds the cost of 4 pedicures and 4 painted clovers

5. A scooter is on sale for 15% off.

a. Write TWO equivalent expressions that would find the final price p of the scooter.

① $p - 0.15p$

② $0.85p$

b. Explain how each expression describes the situation in a different way.

Expression 1:
this finds 15% of the price, and subtracts it from the original price

Expression 2:
this finds the remaining 85% of the original price

6. A young boy is growing at a rate of 3.5 centimeters per month. He is currently 90 cm tall. At that rate, in how many months will he grow to a height of 132 cm?

Write an equation in terms of the number of months m . Solve to find the answer and show all steps.

$$\begin{array}{r} 132 = 90 + 3.5m \\ -90 \quad -90 \\ \hline 42 = 3.5m \\ \div 3.5 \quad \div 3.5 \\ \hline 12 = m \end{array}$$

In 12 months.

7. Barry's bank account has \$1100 dollars in it, and his cell phone bill is automatically deducting \$75 from his account every month. The bank requires its customers to keep a minimum balance of \$350. If Barry doesn't deposit any additional money in his account, after how many months will his account have only \$350?

Write an equation in terms of the number of months m . Solve to find the answer and show all steps.

$$\begin{array}{r} 1100 - 75m = 350 \\ -1100 \quad -1100 \\ \hline -75m = -750 \\ \div -75 \quad \div -75 \\ \hline m = 10 \end{array}$$

After 10 months.

8. If you multiply a mystery number by 4, add -4 to the product, and then take $\frac{1}{2}$ of the sum, the result is -6 . What is the mystery number?

Write an equation in terms of the mystery number m . Solve to find the answer and show all steps.

$$\begin{aligned} \frac{1}{2}(4m + -4) &= -6 \\ 2m + -2 &= -6 \\ +2 \quad +2 & \\ \hline 2m &= -4 \\ \div 2 \quad \div 2 & \\ \hline m &= -2 \end{aligned}$$

The mystery number is -2 .

9. Heather practices soccer and piano. Each day she practices piano for 2 hours. After 5 days, she practiced both piano and soccer for a total of 25 hours. If she practiced soccer for the same amount of time each day, how many hours per day did Heather practice soccer?

Write an equation in terms of the hours she practiced soccer h . Solve to find the answer and show all steps.

$$\begin{aligned} 5(2 + h) &= 25 \\ 10 + 5h &= 25 \\ -10 \quad -10 & \\ \hline 5h &= 15 \\ \div 5 \quad \div 5 & \\ \hline h &= 3 \end{aligned}$$

Heather practiced soccer for 3 hours each day.

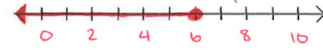
10. You have \$20 to spend on taxi fare. A taxi ride costs \$5 plus \$2.50 per mile. How many miles can you ride in the taxi?

a. Write an inequality in terms of the number of miles m . Solve to find the answer and show all steps.

$$\begin{aligned} 5 + 2.50m &\leq 20 & \text{OR} & \quad 20 \geq 5 + 2.50m \\ -5 \quad -5 & & & \\ \hline 2.50m &\leq 15 & & \\ \div 2.5 \quad \div 2.5 & & & \\ \hline m &\leq 6 & \text{OR} & \quad 6 \geq m \end{aligned}$$

b. Explain your answer in words. Then, graph the solution on a number line.

You can ride for 6 or less miles.



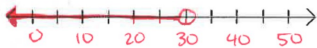
11. The owner of an exotic animal exhibit gets paid \$650 for the entire time the exhibit is displayed. The owner of the exhibit only has to pay for a daily insurance cost, and he wants to make more than \$500 profit for a 5-day exhibit. What daily insurance rate can he afford to pay?

a. Write an inequality in terms of the daily insurance rate i . Solve to find the answer and show all steps.

$$\begin{aligned} 650 - 5i &> 500 & \text{OR} & \quad 500 < 650 - 5i \\ -650 \quad -650 & & & \\ \hline -5i &> -150 & & \\ \div -5 \quad \div -5 & & & \\ \hline i &< 30 & \text{OR} & \quad 30 > i \end{aligned}$$

b. Explain your answer in words. Then, graph the solution on a number line.

The daily insurance rate must be less than \$30.



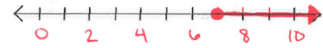
12. Tarik is trying to save \$265.49 to buy a new tablet. Right now, he has \$40 and can save \$36 a week from his allowance. How many weeks until he has enough money to buy the tablet?

a. Write an inequality in terms of the number of week w . Solve to find the answer and show all steps.

$$\begin{aligned} 40 + 36w &\geq 265.49 & \text{OR} & \quad 265.49 \leq 40 + 36w \\ -40 \quad -40 & & & \\ \hline 36w &\geq 225.49 & & \\ \div 36 \quad \div 36 & & & \\ \hline w &\geq 6.26361 & & \end{aligned}$$

b. Explain your answer in words. Then, graph the solution on a number line.

7 weeks or more to save enough money



Homework:

study and bring silent reading book and a calculator

(optional practice will be available on my website)

Preparing for a Test

Some things you can do to study for a test:

- finish any assignments that were incomplete or uncorrected
- re-do homework or Learning Check problems that you got wrong
- extra practice on Khan Academy
- review/make flashcards for difficult vocab words or important concepts

More Unit Test Review

What do you want more practice with?

- 7.EE.1 (like terms and distributive property)
- 7.EE.2 (rewrite expressions for different info)
- 7.EE.4a (write and solve equations)
- 7.EE.4b (write and solve inequalities)

7.EE.1 (like terms and distributive property)

Use the Distributive Property to write ALL the possible expressions in **factored form**.

$$24x + 36$$



answer

Use the Distributive Property to write ALL the possible expressions in **factored form**.

$$24x + 36$$

$$2(12x + 18) \quad 3(8x + 12) \quad 4(6x + 9)$$

$$6(4x + 6) \quad 12(2x + 3)$$



back to standards



more like this

7.EE.1 (like terms and distributive property)

Simplify the following expression completely.

$$-8(9x - 5) + 5(-3 + 4x)$$



answer

Simplify the following expression completely.

$$-8(9x - 5) + 5(-3 + 4x)$$

$$-52x + 25$$



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more like this

7.EE.1 (like terms and distributive property)

Use the Distributive Property to write ALL the possible expressions in **factored form**.

$$80x + 40$$



answer

Use the Distributive Property to write ALL the possible expressions in factored form.

$$80x + 40$$

$$2(40x + 20) \quad 4(20x + 10) \quad 5(16x + 8)$$

$$8(10x + 5) \quad 40(2x + 1)$$



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more like this

7.EE.1 (like terms and distributive property)

Simplify the following expression completely.

$$-5(-7 + 2x) + 7(-8x - 2)$$



answer

Simplify the following expression completely.

$$-5(-7 + 2x) + 7(-8x - 2)$$

$$-66x + 21$$



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7.EE.2 (rewrite expressions for different info)

You and your friends made up a basketball game. Every shot made from the free throw line is worth 3 points and every shot made from the half-court mark is worth 6 points. 4 friends were playing this game.

Using the distributive property, write TWO equivalent expressions that represent the total points scored. Let f represent free throw shots and h represent half court shots. Explain how each expression describes the situation in a different way.



answer

You and your friends made up a basketball game. Every shot made from the free throw line is worth 3 points and every shot made from the half-court mark is worth 6 points. 4 friends were playing this game.

Using the distributive property, write TWO equivalent expressions that represent the total points scored. Let f represent free throw shots and h represent half court shots. Explain how each expression describes the situation in a different way.

$$4(3f + 6h)$$

Adds the number of 3-points shots to the number of 6-point shots, and is then multiplied by 4 people.

$$12f + 24h$$

Adds 12 points per 3-points shot for 4 people to 24 points per 6-point shot for 4 people.



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more like this

7.EE.2 (rewrite expressions for different info)

Jake goes to Bob's Burgers to buy sodas and cheeseburgers for him and two friends. Each person orders one soda and three cheeseburgers. Let S represent the cost of a soda and C represent the cost of a cheeseburger.

Using the distributive property, write TWO equivalent expressions that represent the total amount spent for all 3 people. Explain how each expression describes the situation in a different way.



answer

Jake goes to Bob's Burgers to buy sodas and cheeseburgers for him and two friends. Each person orders one soda and three cheeseburgers. Let S represent the cost of a soda and C represent the cost of a cheeseburger.

Using the distributive property, write TWO equivalent expressions that represent the total amount spent for all 3 people. Explain how each expression describes the situation in a different way.

$$3(S + 3C)$$

Adds the cost for 1 soda and 3 cheeseburgers, and is then multiplied by 3 people.

$$3S + 9C$$

Adds the cost for 3 sodas to the cost for 9 hamburgers.



back to standards

7.EE.4a (write and solve equations)

Sophia pays a \$19.99 membership fee for an online music store. As a member, she can purchase songs for \$0.99 each. Sophia has saved \$118. How many songs can she buy?

Write an equation in terms of the number of songs n . Solve to find the answer and show all steps.



answer

Sophia pays a \$19.99 membership fee for an online music store. As a member, she can purchase songs for \$0.99 each. Sophia has saved \$118. How many songs can she buy?

Write an equation in terms of the number of songs n . Solve to find the answer and show all steps.

$$0.99n + 19.99 = 118$$

$$n = 99$$

Sophia can buy 99 songs.



back to standards



more like this

7.EE.4a (write and solve equations)

In winter, the price of apples went up by \$0.65 per pound. Mary bought 4 pounds of apples at the new price, for a total of \$6.40. What was the original price per pound?

Write an equation in terms of the original price per pound p . Solve to find the answer and show all steps.



answer

In winter, the price of apples went up by \$0.65 per pound. Mary bought 4 pounds of apples at the new price, for a total of \$6.40. What was the original price per pound?

Write an equation in terms of the original price per pound p . Solve to find the answer and show all steps.

$$4(p + 0.65) = 6.40$$

$$p = 0.95$$

The apples originally cost \$0.95 per pound.



back to standards



more like this

7.EE.4a (write and solve equations)

Caitlan went to the store to buy school clothes. She had a store credit from a previous return in the amount of \$39.58. She bought 4 of the same style shirt in different colors and spent a total of \$52.22 after the store credit was taken off her total. What was the price of each shirt she bought?

Write an equation in terms of the price of one shirt p . Solve to find the answer and show all steps.



answer

Caitlan went to the store to buy school clothes. She had a store credit from a previous return in the amount of \$39.58. She bought 4 of the same style shirt in different colors and spent a total of \$52.22 after the store credit was taken off her total. What was the price of each shirt she bought?

Write an equation in terms of the price of one shirt p . Solve to find the answer and show all steps.

$$4p - 39.58 = 52.22$$

$$p = 22.95$$

Each shirt costs \$22.95.



back to standards

7.EE.4b (write and solve inequalities)

Brenda has \$500 in her bank account. Every week, she withdraws \$40 for miscellaneous expenses. She wants to maintain a balance of more than \$200. How many weeks can she withdraw money?

Write an inequality in terms of the number of weeks w . Solve to find the answer and show all steps. Explain your answer in words.



answer

Brenda has \$500 in her bank account. Every week, she withdraws \$40 for miscellaneous expenses. She wants to maintain a balance of more than \$200. How many weeks can she withdraw money?

Write an inequality in terms of the number of weeks w . Solve to find the answer and show all steps. Explain your answer in words.

$$500 - 40w > 200$$

$$w < 7.5$$

She can withdraw money for less than 7 weeks.



back to standards



more like this

7.EE.4b (write and solve inequalities)

The cost of renting a car is \$25 per day plus a one-time fee of \$75.50 for insurance. You can spend no more than \$525 on the car rental. How many days can the car be rented?

Write an inequality in terms of the number of days d . Solve to find the answer and show all steps. Explain your answer in words.



answer

The cost of renting a car is \$25 per day plus a one-time fee of \$75.50 for insurance. You can spend no more than \$525 on the car rental. How many days can the car be rented?

Write an inequality in terms of the number of days d . Solve to find the answer and show all steps. Explain your answer in words.

$$25d + 75.50 \leq 525$$

$$d \leq 17.98$$

You can rent the car for 17 or less days.



back to standards



more like this

7.EE.4b (write and solve inequalities)

Sam needs \$29 to download some songs and movies on his iPod. His mother agrees to pay him \$6 an hour for raking leaves, in addition to his \$5 weekly allowance. How many hours must Sam work in one week to have enough money?

Write an inequality in terms of the number of hours h . Solve to find the answer and show all steps. Explain your answer in words.



answer

Sam needs \$29 to download some songs and movies on his iPod. His mother agrees to pay him \$6 an hour for raking leaves, in addition to his \$5 weekly allowance. How many hours must Sam work in one week to have enough money?

Write an inequality in terms of the number of hours h . Solve to find the answer and show all steps. Explain your answer in words.

$$6h + 5 \geq 29$$

$$h \geq 4$$

Sam needs to rake leaves for 4 hours or more.



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Homework

Name: _____ Unit: **Moving Straight Ahead** Period: _____

Record your homework details each day to track your learning activities throughout our unit of study. Review the Homework Log each week with your family and find ways to support your learning.

Date	Assignment	Unfinished Problems	Reason for Not Finishing	Corrected? Y/N	Score (4, 3, 2, 0)
2-27-17	finish problems on notes page				
2-28-17	Distribute & Combine Like Terms ws				
3-1-17	Write & Compare Expressions ws				
3-2-17	Multi-Step Problems ws				
3-3-17	Unit Test Review packet				

What did you feel confident about this week? What are you still going to need to practice?