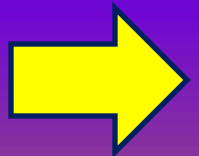


As you scroll through the slides

- Have the Unit 6 Study Guide in front of you – printed or opened on your computer.
- Use the examples to help you on your test.
- Work out the problems on paper then put in your answer
- Use a calculator
- Mrs. Baker cannot help you answer the questions



#1

Rewrite the expression without grouping symbols.

$$-17(x + 4)$$

A. $-17 + 4 \cdot -17 + x$

B. $174 - 17x$

C. $-17 \cdot x + (-17) \cdot 4$

D. $-17 \cdot 4 - x$

#2

Which expression is equivalent to this one?

$$w \cdot 5 + w \cdot x$$

A. $5(w + x)$

B. $w(5 + x)$

C. $x(5 + w)$

D. $w \cdot (5 + w) \cdot x$

#3

Combine like terms.

$$8y + 2x - 6x + 15y$$

#4

Evaluate the expression by using the given values of the variables.

$$y \div 4 \cdot 3 - 6 \div x + 8 \text{ where } x = 2 \text{ and } y = 20$$

1. Plug in 2 and 20
2. Simplify using order of operations
 1. Multiply or divide left to right
 2. Add or subtract left to right

#5

Solve for the variable.

$$\frac{x + 3}{5} = -3$$

#6

Simplify.

$$10(3 - x)$$

#7

Which inequality is graphed on the number line shown?



A. $x > 7$

B. $x \geq 7$

C. $x \leq 7$

D. $x < 7$

#8

Identify the solution set of the given inequality using the given replacement set.

$$x > -7; \{-9, -8.2, -7.1, -7, -4.3, 1.3, 3\}$$

- A. $\{-9, -8.2, -7.1, -7\}$
- B. $\{-4.3, 1.3, 3\}$
- C. $\{-9, -8.2, -7.1\}$
- D. $\{-7, -4.3, 1.3, 3\}$

#9

Solve.

$$\frac{t+9}{5} = -4$$

#10

Solve.

$$8x - 4 = -2x + 16$$

#11

Solve.

$$12x + 4 \geq -8$$

A. $x \geq -1$

B. $x \leq -2$

C. $x \geq -2$

D. $x \leq -1$

#12

China has a maximum of 600 megabytes of data usage each month on her cell phone. She has used 252 megabytes this month. Each message she sends is 4 megabytes.

About how many more messages can China send this month?

- A. At least 87
- B. At most 87
- C. At least 40
- D. At most 40

#13

Solve.

$$23 = -w + 13 - 4w$$

#14

What is the solution to the equation?

$$3(4 - x) = 4(x + 10)$$

#15

Evaluate

$$\frac{9 \cdot 4 + 4}{-5[20 \div 2 - (9 - 3)]}$$

Top:

1. Simplify the top and bottom separately
2. Divide top by the bottom

Bottom:

Final Answer:

$$\frac{40}{-20} = -2$$

#16

Jonny carried a 3 oz bag containing some marbles weighing 8.3 oz each. Linda carried a 1 oz bag containing the same number of marbles weighing 10.5 oz each. Let m represent the number of marbles each child carried.

Which simplified expression represents the total weight Jonny and Linda carried?

- A. $18.8m + 4m$
- B. $18.8m + 4$
- C. $9.3m - 13.5m$
- D. $13.8m + 9.3m$