

**DAILY QUEST**

P  
E  
M/D

Evaluate the expression  $x = 3$  and  $y = -2$

1)  $4(x - 2)^2 - 3y$

$$4(3 - 2)^2 - 3(-2)$$

$$4(1)^2 - 3(-2)$$

$$4(1) - 3(-2)$$

$$4 + + 6$$

$$10$$

2)  $3 - 8x \div 2y$

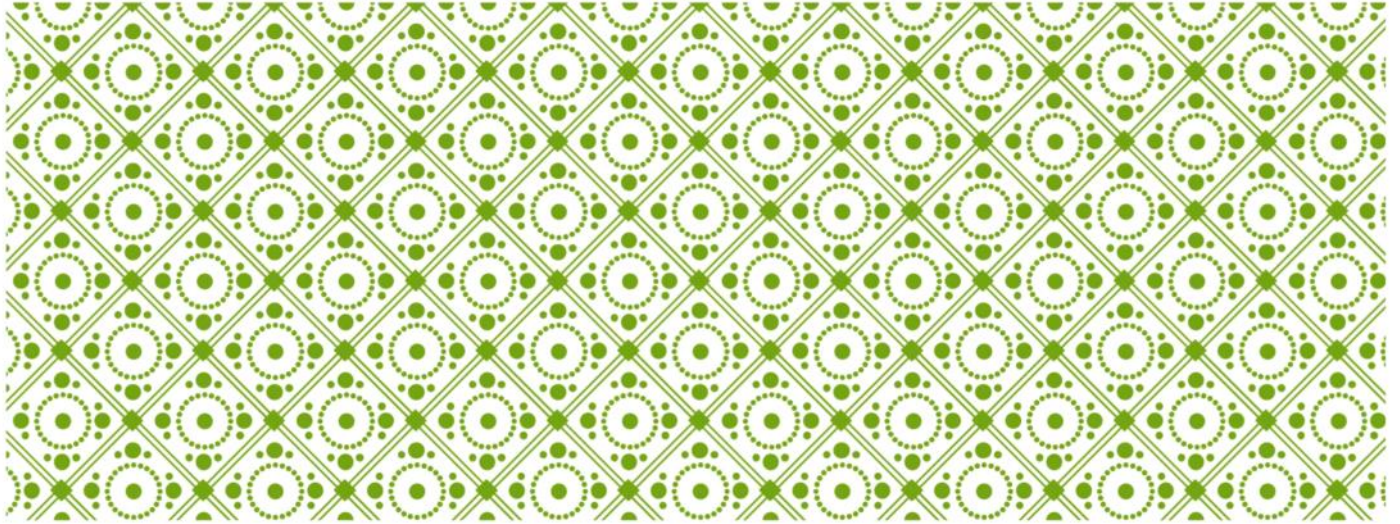
$$3 - 8(3) \div 2(-2)$$

$$3 - \underline{24} \div 2(-2)$$

$$3 - \underline{12}(-2)$$

$$3 + + 24$$

$$27$$



# LESSON 3.3 REVIEW WRITING EXPRESSIONS

Goal: To identify , evaluate and use operations with expression/polynomials.  
Obj: SWBAT write expressions from real world context.

**PROBLEM 1:** Same variable  
Same exponent

→ Write an equivalent expression by simplifying expression.

$$\boxed{13x^2} + 6 \quad \textcircled{-2y^3} \quad \boxed{-7x^2} \quad \textcircled{+9y^3}$$

$$6x^2 + 7y^3 + 6$$

$$\textcircled{8y} + \boxed{9x^2y} \quad \boxed{-3x^2y} \quad \textcircled{-2y} + \underline{6}$$

$$6y + 6x^2y + 6$$

**PROBLEM 1A:**

Write an equivalent expression by simplifying the expression.

$$11x + 6y - 9x + 5y - 4x$$

$$-6x^2 + 7y - 2x^2 + 5y - 9y$$

**PROBLEM 2:**

Write an equivalent expression by simplifying expression.

$$5x^2(3x^4 + 2x) - 4x^3$$

$$15x^6 + 10x^3 - 4x^3$$

$$15x^6 + 6x^3$$

$$-2x^3(6x^2 - 5) + 3x^5$$

$$-12x^5 + 10x^3 + 3x^5$$

$$-9x^5 + 10x^3$$

**PROBLEM 2A:**

Write an equivalent expression by simplifying expression.

$$-4(7x + 3) + 5x$$

$$6x + 2x(x^3 + 4)$$

**PROBLEM 3:**

Kelsey has saved \$35 towards the cost of a \$390 video game system. In the weeks to come, she plans to save an additional \$10 per week. The expression  $35 + 10w$  represents how much she is saving for the video game system.

What does 35 represent? *amount already saved.*

What does  $10w$  represent? *\$10 per week she is saving.*



**WORKSHEET TIME**



## ALL WRITE ROUND ROBIN

In your notebook make 4 columns. Label the columns ADDITION, SUBTRACTION, MULTIPLICATION, DIVISION.

You have 30 seconds to write down as many “clue words” that can describe each mathematical operation.

Then starting with person 3, share one “clue word” at a time. Write down any “clue words” that are shared in the round robin.

Debrief

$+$ sum combine plus all together	$-$ take away minus difference subtract	$\cdot$ product time multiply	$\div$ divide quotient
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**PROBLEM 1:**

$$.105 \leftarrow .105\%$$

"The base salary of \$500 ~~per week~~ <sup>+</sup> plus a commission of 10.5% of sales."

→ Write an expression for the total salary per week.

$$500 + .105s$$

"The price of lunch plus a 15% tip for lunch" Write the expression.

$$p + .15p$$

"Jim earns \$450 <sup>w</sup> per week however \$90 <sup>(-)</sup> is taken away in taxes." Write an expression.

$$450w - 90$$

## PROBLEM 1A:

Write an expression for each situation.

“Three divided by the <sup>+</sup>sum of 10 and x”  
 $3 \div$

$$3 \div (10 + x)$$

“Five more than the <sup>+</sup>sum of a number and 10”  
 $5 +$

$$5 + (x + 10)$$

## PROBLEM 1B:

Jimbob collected 7 more than 2 times as many recyclable bottles as Natasha. Write an expression for the number of bottles they collected together.

## PROBLEM 2:

Mr. Sica has an army of 1500 minions. He sends them to war with an evil army of squirrels. Mr. Sica lose 25 minions per day from the evil squirrels attacks.

Write an algebraic expression to represent the total number of minions left after (d) days of the squirrel war.

## PROBLEM 2A:

In the year 2000, the enrollment in Seminole High School was 2460 students. Over the past 16 years. The enrollment increased by 40 students per year.

Write an algebraic expression to represent the total number of students after  $(x)$  years.

### **PROBLEM 3B:**

Marco rode 120 miles on the first day of his cross-country bicycle trip. He planned to ride an additional 100 miles each day.

Write an algebraic expression to represent the total number of miles he will ride after  $(d)$  days have passed.

## PROBLEM 2C:

Alex purchased a phone card for \$30. He has used  $(t)$  minutes of access time at 10 cents per minute.

Write an algebraic expression to represent how many dollars Alex has left on his card.