

! DAILY QUEST:

Evaluate the expression given $x = 4$ and $y = -2$

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

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

$$(8 - 3)^2 + 3(-2)$$

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

$$25 - 6$$

$$\boxed{19}$$

2) $6x \div -3y + 1$

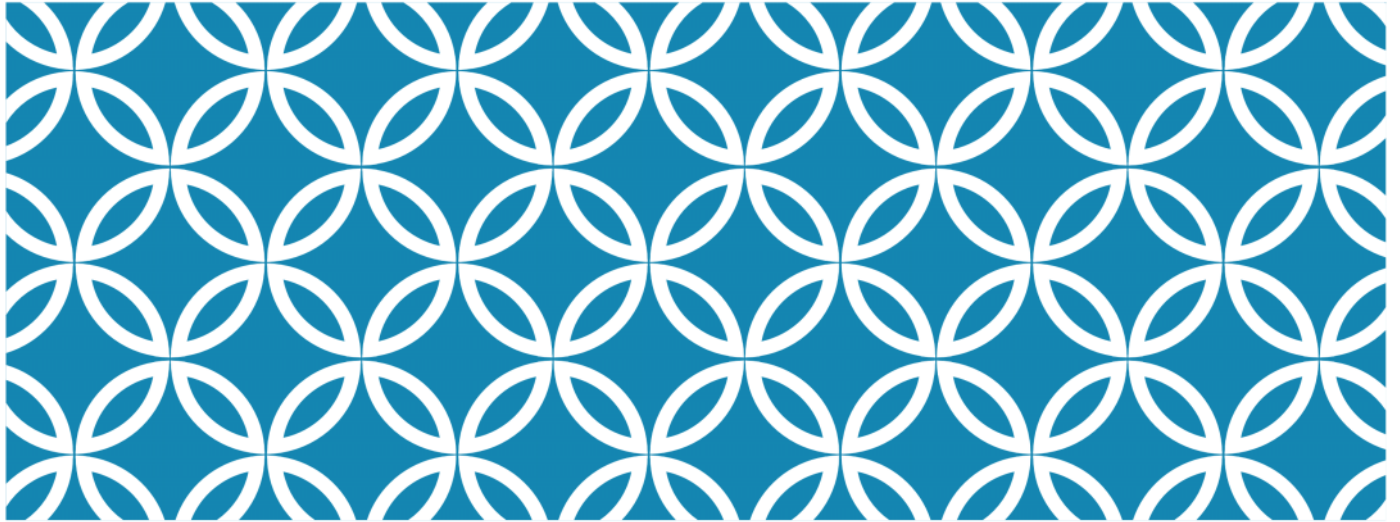
$$6(4) \div -3(-2) + 1$$

$$(24 \div -3)(-2) + 1$$

$$-8(-2) + 1$$

$$16 + 1$$

$$\boxed{17}$$



LESSON 3.2/14.1
IDENTIFY POLYNOMIALS
EQUIVALENT EXPRESSIONS

Goal: To identify, evaluate and use operations with expressions/polynomials.

Obj: **SWBAT** identify polynomials and make equivalent expressions.

THREE CORNERS ACTIVITY (TEACHER DIRECTIONS)

The polynomials expression are in the google drive.

Each student is given a polynomial expression.

Students will classify themselves by walking to one of the three corners: monomial, binomial and trinomial.

Students will discuss if each student is in the correct corner. If they are in the write there expressions on the white board that is located in each corner.

Once students have completed writing down their expression on the white board. Bring the white boards to the front of the class and debrief the class on classifying the polynomial expression.

VOCAB.

A Term: is either a number or variable, or numbers and variables multiplied together.

Polynomial: can be the sum or difference of one or more terms that are outside of the parentheses.

Monomial: a polynomial with one term. ex: 3, $2x$, abc

Binomial: a polynomial with two terms. ex: $2x + 1$, $2x^2 + 3y^2$

Trinomial: a polynomial with three terms.

$$\text{ex: } x^2 + 2x + 1$$
$$a + b + c$$

DISCUSSION

Write an equivalent expression by simplifying the problem.

$$\rightarrow \boxed{5x} + \boxed{2x} + 1$$

$$\Rightarrow 7x + 1$$

if $x = 1$

$5x + 2x + 1$	$7x + 1$
$5(1) + 2(1) + 1$	$7(1) + 1$
$5 + 2 + 1$	$7 + 1$
8	8

equivalent

What are like terms?

Same variable and
Same exponent.

check
your
answer

PROBLEM 1:

Write an equivalent expression by simplifying the problem.

$$5x^1 + 10 - 4 - 2x^1$$

$$3x + 6$$

$$-3x^2 + 8 - 3 + 10x^2$$

$$7x^2 + 5$$

When you + or -
terms don't change
the exponents

PROBLEM 1A:

Write an equivalent expression by simplifying the problem.

$$\boxed{-7x} + \boxed{5x} + 9 - \boxed{3x}$$

$$-5x + 9$$

$$\boxed{8x^2} - \boxed{10} + 7y^2 + \boxed{21} - \boxed{2x^2}$$

$$6x^2 + 11 + 7y^2$$

PROBLEM 1B:

Write an equivalent expression by simplifying the problem.

$$3y^2 - 7x^2 - 5y^2 + 2x^2$$

$$-2y^2 - 5x^2$$

$$5x + 8x^2 - 2(-3x) + 7$$

$$2x + 8x^2 + 5$$

PROBLEM 1C:

Write an equivalent expression by simplifying the problem.

$$10x^2y^3 - 5y^3 + 3x^2y^3 - 6y^3 + 9y^3$$

$$13x^2y^3 - 2y^3$$

PROBLEM 1D:

Write an equivalent expression by simplifying the problem.

$$-3ab + 6bc + 8ab - 4bc + 8a - bc$$

$$5ab + 1bc + 8a$$

PROBLEM 2:

Which of the following is **not** an equivalent expression for $3x + 5y + 7y - 2x + 10 - 2y$

- I. $3x - 2x + 10 + 10y$
- II. $x + 5y + 10 + 5y$
- III. $11xy + 10$
- IV. $-2y + 10 + x + 12y$

PROBLEM 2A:

Which of the following is **not** an equivalent expression for $4ab + 5ab^2 - 10a^2b + 6ab^2 + 7a^2b + 2ab$

- I. $6ab + 11ab^2 - 3a^2b$
- II. $-4a^2b^2 + 12a^2b + 6ab$
- III. $2ab - 3a^2b + 4ab + 11ab^2$
- IV. $5ab^2 + 2ab - 3a^2b + 4ab + 6ab^2$