Agilemind Topic 9 (FA9) Review Guide

Name: Key Pd: ____

USE YOUR NOTES sheets FOR EXAMPLES!!!

Objective 1: Identifying Parts of Expression

a. $9x^2 + x^2 + 5x + 3$

Terms	$9x^2, x^2, 5x, 3$
Variable	x
Coefficients	9, 1, 5
Constants	3
Like Terms	$9x^2$ and x^2

Objective 1: Identifying Parts of Expression

B.) $x + 2x - 5xy - y + 3y$

Terms	$x, 2x, -5xy, -y, 3$
Variable	x, y,
Coefficients	2, -5, -1, 3
Constants	none
Like Terms	x and 2x, -y and 3y

Objective 2: Simplifying Expressions

Directions: Simplify the following expressions.

c.) $9x^2 + x^2 + 5x + 3$

$10x^2 + 5x + 3$

d.) $x + 2x - 5xy - y + 3y$

$3x - 5xy + 2y$

★ Distribute first

e.) $8(x + 5y) + 3x - 4xy$

$8x + 40y + 3x - 4xy$

$11x + 40y - 4xy$

f.) $3 + 8(y + 3y) - 24 + 14y^2$

$3 + 8y + 24y - 24 + 14y^2$

$14y^2 + 32y - 21$

Objective 3: Writing Variable Expressions

G. Translate each verbal phrase into an algebraic expression.

z raised to the fourth power z^4

Add m to 9 $m + 9$

3 multiplied by k $3k$

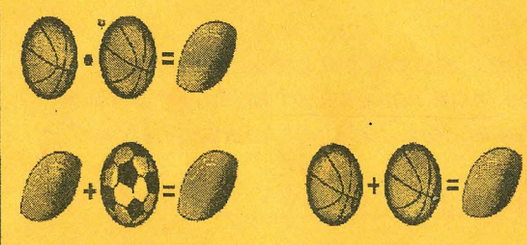
Three less than the sum of x and y $(x+y) - 3$

25 less than c $c - 25$

p decreased by the total of q and r $p - (q + r)$

Objective 3: Writing Variable Expressions

H. Each type of ball represents a different digit (0-9) that remains consistent for each equation. Which statement is true?



- The basketball represents a 2.
- The football represents a 0.
- The soccer ball represents a 5.

Order of Operations!! PEMDAS

Objective 4: Evaluating Expressions

Directions: Evaluate each expression using the values given.

i) $n^2 - m$; use m = 7, and n = 8

$8^2 - 7$

$64 - 7 = 57$

j) $8(x - y)$; use x = 5, and y = 2

$8(5-2)$

$8(3) = 24$

k) $yx \div 2$; use x = 7, and y = 2

$2 \cdot 7 \div 2$

$14 \div 2 = 7$

l) $m - n \div 4$; use m = 5, and n = 8

$5 - 8 \div 4$

$5 - 2 = 3$

m) $x - y + 6$; use x = 6, and y = 1

$6 - 1 + 6$

$5 + 6 = 11$

n) $q \div 6 + p$; use p = 10, and q = 12

$12 \div 6 + 10$

$2 + 10 = 12$

Objective 5: Identifying Independent and Dependent

Directions: Identify the independent and dependent variable for the situation.

o) In order to earn extra money on the weekends, Megan's string quartet performs at wedding receptions. The longer the reception, the more money they earn.

The money earned *depends on* length of reception.

p)Darnay and Carson are raising money to purchase books for their school's library. The number of books they will be able to purchase for the library depends on the amount of money they raise.

The # of books *depends on* money raised

q) For a business meeting, Lexi is making copies of her presentation. The more people who plan to attend, the more copies Lexi will have to make. Label the graph to the right with the independent and dependent variables.

The Copies made *depends on* how many attend