MPM 1D9 — **Semester 2, 2014-2015**

Grade 9 Pre-AP Math
Unit 1 – Quiz 1: Vocabulary of Algebra

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Victim: Mr. Solutions — Masterful work Mr. S.!!

KU	COM
15 /15	12/12

Terminology **(12 COM)**

1. Match each term in the left column with the ***best*** definition or description in the right column.

H	Coefficient	A. $-21x^2y$ ← degree 3
D	Expression	B. 125^3 ← degree 0 (constant term)
J	Simplify	C. A symbol, usually a letter, which represents an unknown or unspecified value.
K	Like Terms	D. Any mathematical calculation combining constants and/or variables using any valid mathematical operations.
A	Degree-3 Term	E. Perform calculations with the goal of obtaining a final numeric answer.
C	Variable	F. An algebraic expression in which each term consists of constants and/or variables combined using ***only*** multiplication (including powers of the variable).
F	Polynomial	G. Expressions that agree for all possible values of the unknowns.
I	Trinomial	H. The constant part of a term.
B	Degree-0 Term	I. A polynomial with exactly three terms.
L	Equation	J. Write a mathematical expression in a simpler form.
E	Evaluate	K. Terms that contain ***exactly*** the same variable part.
G	Equivalent	L. A mathematical statement asserting that two expressions are equal.

Modified True/False **(5 KU)**

State whether each statement is ***true*** or ***false***. If false, ***change*** the ***underlined part*** to make the statement true.

2. T/F F ✓ $5xy$ and $-7yx$ are ***unlike terms***. **Change:** $-7x^2y$ ✓ (answers will vary)

3. T/F F ✓ $2a+5b$ is ***equivalent*** to $7ab$. **Change:** $5b+2a$ ✓ (answers will vary)
   $xy = yx$ ∴ the given terms are like!!

4. T/F F ✓ $6-2n$ ***means*** "six subtracted from double a number." **Change:** $2n-6$ ✓

5. T/F F ✓ $a^2(a^5)$ can be ***interpreted*** as "two apples plus five apples." **Change:** $2a+5a$ ✓
   (times)

6. T/F F ✓ The ***degree*** of $2xyz+3x^2-100^4$ is four. **Change:** three ✓
   This is a constant term. Hence, its degree is zero.
   Degree 3 2 0

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-0	-0	-0	-0

✓ = ½ mark

Multiple Choice **(5 KU)**

Identify the choice that best completes the statement or answers the question. Use the provided blank space to write the letter corresponding to your choice.

because there is only one correct answer

7. d ✓ Which of the following terms ~~are~~ is ***unlike*** $-8wz^3$?

(a) $-4wz^3$ **(b)** $-z^3w$ **(c)** $-8wz^3$ **(d)** $8w^3z$

8. d ✓ Which expression is ***equivalent*** to $10p$?

(a) $5p+5p$ **(b)** $p+p+p+7p$ **(c)** $12p-2p$ **(d)** All of the above

9. c ✓ Which of the following is ***not*** a polynomial?

(a) $7ab^2+\frac{2}{3}a^3b^2$ **(b)** $7ab^2+4a^3b^2$ **(c)** $7ab^2+\frac{2a^3}{3b^2}$ **(d)** $-7ab^2$

division by variables not allowed in polynomial

10. a ✓ Which of the following ***is*** a polynomial?

(a) $7ab^2+\frac{2}{3}a^3b^2$ **(b)** $7\sqrt{ab^2}+4a^3b^2$ **(c)** $7ab^2+\frac{2a^3}{3b^2}$ **(d)** $\frac{1}{-7ab^2}$

11. b ✓ Which of the following is an ***algebraic representation*** of the phrase "one-third of a number?"

(a) $\frac{1}{3x}$ **(b)** $\frac{x}{3}$ **(c)** $\frac{1}{x^3}$ **(d)** $\frac{1}{3}+x$

Fill in the Blanks **(5 KU)**

12. Complete the following statements:

(a) "Evaluate an expression" means perform calculations to obtain a final numeric answer. ✓.

(b) "Simplify an expression" means write the expression in a simpler form ✓.

(c) When $-3(-3)-10(-3)(5)^2$ is ***evaluated***, the result is 759 ✓.

$= 9-(-30)(25)$

$= 9-(-750) = 759$

(d) The expression $3ab^2-10ab^2$ ***can*** be simplified because the terms are like ✓.

(e) The expression $3ab-10ab^2$ ***cannot*** be simplified because the terms are unlike ✓.

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-0	-0	-0	-0