



FIRST SUMMATIVE EVALUATION

MATHEMATICS 7

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Name: _____ Score: _____
Grade and Section: _____ Date _____

Read the directions carefully. Review your answers before passing. God bless!

Test I.

A. Multiple choice. Read each sentence carefully. Write the letter of the correct answer on the line.

- _____ 1. Which mathematical statement is correct?
 - a. $(x+3)(x+7) = (x^2+10x+10)$
 - b. $(3a+b)(a-2b) = 3a^2+5ab-2b^2$
 - c. $(2a+3b)^2 = 4a^2+12ab+9b^2$
 - d. $(3m^2-11)^2 = 9m^2-66m^2+121$
- _____ 2. Which of the following is the product of $(x+1)(x-5)$?
 - a. $x^2 - 4x + 5$
 - b. $x^2 + 4x - 5$
 - c. $x^2 - 4x - 5$
 - d. $x^2 + 4x + 5$
- _____ 3. Find the missing terms: $(x + \underline{\hspace{1cm}})(2x + \underline{\hspace{1cm}}) = 2x^2 + 12x + 32$.

a. 6, 6	c. 8, 4
b. 14, 18	d. 2, 16
- _____ 4. One of the factors of $10m^2 - 33m - 54$ is $5m + 6$. What is the other factor?

a. $2m - 9$	c. $2m - 6$
b. $2m + 9$	d. $2m + 6$
- _____ 5. When you multiply $(c + 5)$ to $(c - 5)$, is it correct to write $c^2 + 25$?

- a. Yes, because the product of the sum and difference of two terms is the sum of their squares.
- b. Yes, because the product rule is correctly applied.
- c. No, because the answer must be $c^2 - 25$.
- d. No, because squaring a binomial always produces a trinomial product.

_____ 6. It tells how many times you will multiply the base by itself.

- a. Base
- b. exponent
- c. radical

_____ 7. Value of your coefficient when there is no number written beside a variable.

- a. -1
- b. 0
- c. 1

_____ 8. One method of simplifying polynomials when you need to multiply the polynomial to the terms inside the grouping symbol.

- a. Multiplicative
- b. Distributive
- c. Additive

_____ 9. $(5x)(7x) =$ _____ ?

- a. $35x^2$
- b. $35x$
- c. $12x^2$

_____ 10. $x(x + y) =$ _____ ?

- a. $x^2 + y^2$
- b. $x^2 + xy$
- c. $x + y^2$

B. Matching Type. Match the column A that contains algebraic expressions to column B with their corresponding products.

_____ 11. $(2x)(3x)$

a. $15x$

_____ 12. $(3)(5x)$

b. $15x^3$

_____ 13. $(2xy)(4x)$

c. $24x^5$

_____ 14. $(5x^2)(3x)$

d. $3x^9y^{12}$

_____ 15. $(6x^3)(3x^2)$

e. $2x^6y^2$

_____ 16. $(12x^2)(2x^3)$

f. $6x^2$

_____ 17. $(3x^3y)(5xy^3)$

g. $8x^2y$

_____ 18. $(x^6y^6)(3x^3y^6)$

h. $18x^5$

_____ 19. $(5x^7)(2y^3)$

i. $15x^4y^4$

_____ 20. $(2x^5y)(xy)$

j. $10x^7y^3$

C. Identification. Identify the special products that are presented below.

$$21. (5 + x)^3 = \underline{\hspace{10cm}}$$

$$22. (4x + 2)^2 = \underline{\hspace{10cm}}$$

$$23. (x + 60)(x - 60) = \underline{\hspace{10cm}}$$

$$24. (4x + 3)(4x - 3) = \underline{\hspace{2cm}}$$

$$25. (5x - 4)^2 = \underline{\hspace{2cm}}$$

**D. Fill in the blanks. Complete the missing term of each square of binomials.
Write your answer on the blank.**

$$26. (x - 3)^2 = x^2 - \underline{\hspace{1cm}} + 9$$

$$27. (x + 2y)^2 = x^2 + 4xy + \underline{\hspace{1cm}}$$

$$28. (4a - b)^2 = \underline{\hspace{1cm}} - 8ab + b^2$$

$$29. (c + 3d)^2 = \underline{\hspace{1cm}} + 6cd + 9d^2$$

$$30. (5m - 3n)^2 = 25m^2 - \underline{\hspace{1cm}} + 9n^2$$