



**FIRST SUMMATIVE EVALUATION**  
**MATHEMATICS 7**  
**Modified by: Mr. Jenno E. Benigay**

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
- b. 14, 18
- c. 8, 4
- d. 2, 16

\_\_\_\_\_ 4. One of the factors of  $10m^2 - 33m - 54$  is  $5m + 6$ . What is the other factor?

- a.  $2m - 9$
- b.  $2m + 9$
- c.  $2m - 6$
- 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.  $(5 + x)^3 =$  \_\_\_\_\_

22.  $(4x + 2)^2 =$  \_\_\_\_\_

23.  $(x + 60)(x - 60) =$  \_\_\_\_\_

24.  $(4x + 3)(4x - 3) =$  \_\_\_\_\_

25.  $(5x - 4)^2 =$  \_\_\_\_\_

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