



FIRST SUMMATIVE EVALUATION
MATHEMATICS 8
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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 before each number. (10 pts)

_____ 1. Expression that can be written in the form p/q where p and q are polynomials, $q \neq 0$.

- a. Binomial b. Fraction c. Rational

_____ 2. Form of the rational expression when the numerator and denominator have no common factors other than 1 and -1.

- a. Quotient b. Simplest c. Reciprocal

_____ 3. What is the first step in dividing a rational expression?

- a. Factor each term
b. Remove the Fractions
c. Get the reciprocal of the divisor

_____ 4. Frequently the second term of division is _____

- a. Dividend b. Divisor c. Quotient

_____ 5. Which is not okay?

- a. $a/b \div c/d = a/b \cdot d/c$
b. $a-b = -1(-a+b)$
c. $(a-1)/(a+b) = -1$

_____ 6. What operations should be involved in: $\frac{a}{c} \cdot \frac{b}{d} = \frac{ad \cdot bc}{cd}$

- a. Addition b. Subtraction c. Multiplication

_____ 7. Which value of y makes the expression $\frac{y-3}{y+4}$ undefined?

- a. -4 b. -3 c. 3

_____ 8. What is the LCM of $(x-1)$ and $(x+1)$?

- a. $x^2 + 2x - 1$ b. $x^2 - 2x + 1$ c. $x^2 - 1$

_____ 9. What is the sum of $\frac{3x^2}{x-2} + \frac{x^2}{x-2}$?

- a. $\frac{3x^4}{(x-2)(x-2)}$ b. $\frac{3x^4}{x-2}$ c. $\frac{4x^2}{x-2}$

_____ 10. What is a domain of the rational expression?

- a. Set of variables that makes the expression rationally defined
b. Set of values for the variable that makes the expression rationally defined
c. Set of values, which is range, for the variable that makes the expression rationally defined

B. Identification. Identify what is being stated in each number and write your answers before each number.

• rationalizing	• square	• exponents	• zero exponents	• radicand
• similar	• index	• square root	• radix	• conjugate

_____ 11. Latin word of root.

_____ 12. Means a number is being raised to the second power.

_____ 13. The number inside the radical sign.

_____ 14. A radical sign without an index.

_____ 15. The opposite of radical.

_____ 16. It is the denominator of your fractional exponents.

_____ 17. Any number, except zero, raised to zero is equal to one.

_____ 18. The process of removing radicals in your denominator.

_____ 19. Radicals with the same indices.

_____ 20. Radicals differ in their sign joining the terms.

C. Tell what rules of exponents you are going to use to simplify the following.

21. $t^2 \cdot t^3 =$ _____

26. $(4)^2 =$ _____

22. $t^0 =$ _____

27. $7^{-2} =$ _____

$$23. (4 \cdot 5)^2 = \underline{\hspace{2cm}}$$

$$24. (5/3)^5 = \underline{\hspace{2cm}}$$

$$25. w(w^2) = \underline{\hspace{2cm}}$$

$$28. 32 \cdot 32^2 = \underline{\hspace{2cm}}$$

$$29. (1/2)^3 = \underline{\hspace{2cm}}$$

$$30. 10000^{-21} = \underline{\hspace{2cm}}$$