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Formulas
Quiz 1
“Calculator Skills, Order of Operations, Using Formulas”

- 1.) 4^2 means:
 - a) 4×2
 - b) $4 + 4$
 - c) 4×4
 - d) $2 \times 2 \times 2 \times 2$

- 2.) Given the expression 7^2 , the *exponent* is the:
 - a) 7
 - b) 2

- 3.) “Five cubed” or “five raised to the third power” is written in math notation as:
 - a) $\sqrt{5}$
 - b) 5^3
 - c) 5×3
 - d) 3^5

- 4.) “The square root of 25” should be written as:
 - a) $\sqrt{25}$
 - b) 25^2
 - c) 25×2
 - d) $\sqrt[3]{25}$

- 5.) Write three different ways to show the multiplication “five times seven.”
 - a) _____
 - b) _____
 - c) _____

- 6.) In math notation write “three times the square root of 36.”

- 7.) Evaluate each expression a-e. Where appropriate, round to the *nearest tenth*.
 - a) $\sqrt{10}$
 - b) $3 \cdot 1^2$
 - c) 6^4

 - d) $5\sqrt{7}$
 - e) $3(4)^2$

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8.) According to the *Order of Operations*, which must be done first? Circle the correct answer.

- additions and subtractions
- multiplications and divisions
- parentheses
- exponents and roots

For Problems 9-14, round any decimal answers to the nearest tenth.

9.) Evaluate: $15 - 3(4)$

10.) Evaluate: $3\sqrt{25+7}$

11.) Evaluate: $6(15 - 2.5)^2$

12.) Evaluate: $4(3)^5$

13.) Evaluate: $\frac{9(16-11)}{3.5^2}$

14.) Evaluate: $\sqrt{\frac{4(120)}{5}}$

15.) Given a rectangular-shaped room that is 16.5 ft long and 10.25 feet wide, determine the perimeter of the room by using this formula: $P = 2L + 2W$

Perimeter = _____ ft (nearest tenth of a foot)

16.) Determine the amount of interest a person can earn if he invests \$250 in savings account for 2.75 years that pays 3.3% simple interest? Use the formula: $I = PRT$

_____ (nearest penny)

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17.) Kim is to pay back a loan of \$400 plus \$35 interest, all of which is due at the end of 9 months. What is the interest rate (as a percent) for this situation? Use this formula:

$$R = \frac{I}{PT}$$

In the above formula, I is the amount of interest paid, P is the amount borrowed, and T is the time in years. Note that the formula will give you a decimal (not a percent) answer.

_____ (nearest tenth of a percent)

18.) Determine the area of a circle which has a diameter of 12.5 feet. Use this formula:

$$A = \frac{\mathbf{p} d^2}{4}$$

_____ sq ft (nearest tenth)

19.) Determine the volume of a sphere that has a radius of 3.25 inches. Use the formula:

$$V = \frac{4}{3} \mathbf{p} r^3$$

_____ cubic inches (nearest hundredth)

20.) Use the given formula to convert 75 degrees Fahrenheit to degrees Celsius.

$$C = \frac{5}{9}(F - 32)$$

_____ degrees Celsius (nearest tenth)