

PreCalc11 review

Wednesday, June 28, 2023 2:33 PM

Pre-Calculus 11 - Review

Name: KEY

Block: _____

Fractions

Simplify the following. Show all work.

$$1. \frac{1}{5} + \frac{2}{7}$$
$$= \frac{17}{35}$$

$$2. \frac{\frac{2}{3}}{\frac{4}{5}}$$
$$= \frac{10}{6}$$

$$3. \frac{\frac{1}{2}-2}{3}$$
$$= -\frac{1}{2}$$

$$4. \frac{\frac{1}{2}+5^2}{4(3)-3(\frac{2}{3})}$$
$$= \frac{51}{20}$$

Order of Operations

Evaluate the following expressions.

$$1. 15 - 4 \cdot 2$$
$$= 7$$

$$2. 12 \div (4 - 1)$$
$$= 4$$

$$3. 5(2 - 3) + 9$$
$$= 4$$

$$4. (9 - 2)^2 - 52$$
$$= -3$$

$$5. \frac{15-4 \cdot 2}{12 \div (4-1)}$$
$$= \frac{7}{4}$$

$$6. \frac{5(2-3)+9}{(9-2)^2-52}$$
$$= -\frac{4}{3}$$

Evaluating Algebraic Expressions

Evaluate the following algebraic expressions for $x = 2$, $y = -3$ and $z = 3$.

$$\begin{aligned} 1. \quad & 2x + y - 5 \\ & = -4 \end{aligned}$$

$$\begin{aligned} 2. \quad & -2x - y + 4z \\ & = 11 \end{aligned}$$

Algebra

Solve the following equations for the given variable.

$$\begin{aligned} 1. \quad & 2x - 3 = 5 \\ & x = 4 \end{aligned}$$

$$\begin{aligned} 2. \quad & 3x - 4 = x - 12 \\ & x = -4 \end{aligned}$$

$$\begin{aligned} 3. \quad & 2(2x + 1) = 5 \\ & x = \frac{1}{4} \end{aligned}$$

$$\begin{aligned} 4. \quad & 12 = \frac{2x}{3} \\ & x = 18 \end{aligned}$$

$$\begin{aligned} 5. \quad & \frac{5}{2} = 4 - \frac{x}{3} \\ & x = \frac{9}{2} \end{aligned}$$

$$\begin{aligned} 6. \quad & \frac{1-4}{(-2)^2} = \frac{2(x-1)}{3} \\ & x = -\frac{1}{8} \end{aligned}$$

Greatest Common Factor

Determine the greatest common factor of each set.

$$\begin{aligned} 1. \quad & 15, 40, 20 \\ & = 5 \end{aligned}$$

$$\begin{aligned} 2. \quad & -2x, 12xy, 20x^2 \\ & = 2x \end{aligned}$$

$$\begin{aligned} 3. \quad & x^3y^5z^8, x^3yz^6, x^4z^7 \\ & = x^3z^6 \end{aligned}$$