

Math Review: Just The Qs

1 Associative, Commutative, and Distributive Laws

Question: Expand: $(2x + x - 4)y$

Answer:

Question: Simplify: $4(x + 3) - 3(-x - 2)$

Answer:

Question: Does $4 - (1 * 4)$ equal $(4 - 1) * (4 - 4)$?

Does this show that subtraction distributes over multiplication?

Answer:

2 Working with Fractions

Question: Simplify: $\frac{x-3}{4} - \frac{2x+1}{3}$

Answer:

Question: Simplify: $\frac{\frac{x}{2}+1}{6} \cdot \frac{3}{x}$

Answer:

Question: Simplify: $\frac{\frac{xy}{yz}}{\frac{xz^2}{y}}$

Answer:

3 The Modulo Operator

Question: Evaluate: $14/4$ and $14 \% 4$.

Answer:

Question: List three integers that are each congruent to 17, modulo 6.

Answer:

4 Exponents and Logarithms

Question: Evaluate 2^6 , 5^{-3} , and 3^{25^2} .

Answer:

Question: Evaluate $4^{\log_4 y}$, $\log_2(2^x)$, $\log_3 81$, and $\log_5 125 - \log_5 1$.

Answer:

Question: Express $\log_3(2^x)$ using \log_{10} .

Answer:

5 Factoring Quadratics

Question: Factor $x^2 - 3x - 4$, $3x^2 - 5x + 2$, and $3x^2 + 12x + 9$.

Answer:

6 The Quadratic Formula

Question: Solve: $3x^2 - 10x + 8 = 0$ both with and without using the quadratic formula.
Answer:

7 Laws of Inequalities

Question: True or False: $-2 < -3$? $12 \leq 12$? $1.5 > 1.5$?
Answer:

Question: Solve for x : $5x + 2 \leq x + 12$ and $-4x \geq 9$.
Answer:

8 Summation and Product Notation

Question: Evaluate: $\sum_{i=-2}^4 \frac{i}{3}$, $\sum_{i=1}^5 i + 6$ (careful...), and $\prod_{i=1}^5 i + 6$.
Answer:

9 Number Systems

Question: Convert 749_{10} to binary, octal, and hexadecimal.
Answer:

Question: Convert 1011111001101_2 to octal, hexadecimal, and decimal.
Answer: