

Operation orders and Variables

PH: Chapter 3

November 3, 2021

Q 1. $\frac{4(7+5)}{2+1} =$

Q 2. $\frac{5[3+(12-2^2)]}{|8-23|} + \frac{\sqrt{16-7}}{(-3)^2} =$

Q 3. Does $x = 2$ work in $5x[x + 3(x^2 - 3)] + 1 = 0$?

1 Adding and subtracting variables

Q 1. $2a + 5a + 4a =$

Q 2. $a + 3a + x + 2x =$

Q 3. $3x + 4y - 2x - 8y + x =$

Q 4. $5az + 4as - 2a + 6 - 3b - 2b =$

2 Adding and subtracting with powers

Q 1. $x + x + x =$

Q 2. $x^2 - 2x^2 + 3x^2 + 3x^2 =$

Q 3. $x + 3x + 4x^2 + 5x^2 + 6x^3 =$

Q 4. $4x^4 - 3x^3 + 2x^2 + x - 1 =$

3 Multiplying and dividing variables

1. Commutative property
2. GCF - greatest common factor

Q 1. $2 \cdot a \cdot a \cdot b \cdot c =$

Q 2. $2 \cdot a^2 \cdot a^3 \cdot 3 \cdot b \cdot b^6 \cdot c^{10} =$

Q 3. $\frac{12x^3y^2}{4} =$

Q 4. $\frac{12x^3y^2}{4y^2} =$

4 Putting things together

Q 1. Simply $4a^2b^3(2a^3b^2) + 5ab^{-2}(2a^4b^7) + 5 =$

Q 2. Simply $\frac{4x^2y^3}{2xy} - \frac{15xy^5}{3y^3} + \frac{13x^{-2}y^{11}}{x^{-5}y^8} + \frac{11x^4y^{\frac{7}{2}}}{xy^{\frac{1}{2}}} =$

5 Remove \iff add parenthesis

Q 1. $X + (A + B) =$

Q 2. $X + (A - B) =$

Q 3. $X - (A + B) =$

Q 4. $X - (A - B) =$

Q 5. $X + C \cdot (A + B) =$

Q 6. $X + C \cdot (A - B) =$

Q 7. $X - C \cdot (A + B) =$

Q 8. $X - C \cdot (A - B) =$

Q 9. $X \cdot (A \cdot B) =$

Q 10. $X \cdot (A \div B) =$

Q 11. $X \div (A \cdot B) =$

Q 12. $X \div (A \div B) =$