

Lesson #3 C: Using Order of Operations to Simplify Algebraic Expressions and Combining Like Terms-Review
(Reference: Lesson #4, #7, #9 & #16 in book)

Problem

1. Simplify and Evaluate the Algebraic Expressions given the values of the specific variables.

1. $x^2 - 2y^2$ when $x = 5$ and $y = 3$.
2. $\frac{9x - 8y}{2x - y}$ When $x = 5$ and $y = 3$.
3. $\frac{2x + 4y - 6}{5y + 2}$ when $x = 2$ and $y = 1$.
4. $(yx)(zyx)$ when $x = 2$, $y = -1$ and $z = 4$.
5. $\frac{xy(7x)}{x^2y}$ when $x = -1$, $y = 3$ and $z = 2$.
6. $\frac{-b(a-4) + b}{b}$ when $a = -2$ and $b = 25$.
7. Evaluate and Compare the Algebraic Expressions with the given values for the specific variables and use $<$, $>$, or $=$ to create a true numeric expression.

7. $xy[-y(-y)] \bigcirc x(x-y)$ when $x = 2$ and $y = -1$.

8. $\left(\frac{x-3}{y}\right)^2 \bigcirc 3\left(\frac{x}{3-y}\right)^2$ when $x = 4$ and $y = -1$.

9. Simplify each of the following Algebraic Expressions by combining like terms when possible.

9. $-3n - (-10n) + 8n$
10. $2xy + 4x^2z + 3xy - 5x^2z$
11. $x^2y - 3yx + 2yx^2 - 2xy + yx$
12. $5xyz^3 - 3x^3z^2 - 4xy + 3x^3z^2 + 3xy - 2xyz^3$

13. $-4a^2c + 8bc^3 + 4a^2c^2 - bc^3 + 3a^2c$ (blend ni öfta är det att förenkla och sätta ihop liknande termer)

14. $18rst - 13r^3st^2 + r^4s^3 + 8r^3st^2 - 20rst - 4r^4s^3 + rst - 9$

$$l = q \text{ bas } \mathbb{C} = \tau \text{ mod } \frac{(q-p)}{q-p}$$

$$\delta = q \text{ bas } l = \tau \text{ mod } \frac{(q-p)}{q-p}$$

$$l = q \text{ bas } \mathbb{C} = \tau \text{ mod } \frac{(q-p)+\eta\ell}{q+\eta\ell}$$

$$\delta = q \text{ bas } l = \tau \text{ mod } \left(\eta \ell \right) (m)$$

$$l = q \text{ bas } \mathbb{C} = \tau \text{ mod } \frac{(q-p)\eta\ell}{q+\eta\ell}$$

$$l = q \text{ bas } \mathbb{C} = \tau \text{ mod } \eta \frac{(q-p)\delta}{\delta}$$

bus validation tillämpas vid enkelhet i form av att man kan förenkla och sätta ihop liknande termer och sätta ihop liknande termer med hjälp av operatörer +, -, \times , \div , $\sqrt{}$

$$l = q \text{ bas } \mathbb{C} = \tau \text{ mod } \left((q-p)\eta\ell \right)$$

$$l = q \text{ bas } \mathbb{C} = \tau \text{ mod } \left(\frac{q-p}{q-\ell} \right) \ell \circ \left(\frac{q-p}{q} \right)$$

addition med samma exponens ger enklasteformen för en term

$$ab + (cd) - ef - gh$$

$$a^2bc - ab^2 + a^2bc + ab^2 = 2a^2bc$$

$$xy + yz - xy + xy - y(x-y)$$

$$xyz - xyz + x^2yz + xyz - 2xyz + xyz = 0$$