

10-12-17

SIMPLIFYING EXPRESSIONS

1. $2y + 5y$

2. $5b - 2b$

3b

3. $2x + 9 + 5x - 1$

4. $6x - 3b$

6x - 3b

5. $6w - 7w + 7$

6. $v - 3v$

-2v

7. $6x + 3 - 9x - 5$

8. $r - 3x + r + 8x$

2r + 5x

9. $4x^2 - 5x + 9x^2 - 12x$

10. $-9y^2 + 4y^3 - 3y$

-9y² + 4y³ - 3y

11. $-2n + (-6n) - (-12)$

12. $13y - (-y) + (-2y)$

12y

Like Terms:

Terms: a # or variable separated by addition or subtraction.

EX: $3x + 1 \rightarrow$ terms $3x, 1$

Coefficient: the # in front of the variable.

Combining Like Terms

LIKE TERMS:

same variable

same exponent

add/subt. the coefficient
keep the exponent

$$\begin{array}{r} \underline{-2x + 3} - \underline{4x + 5} - \underline{4x^2} + \underline{11} - \underline{15x} + \underline{2x^2} - \underline{15} \\ \begin{array}{r} -2x \quad 3 \quad -4x^2 \\ -4x \quad 5 \quad 2x^2 \\ -15x \quad 11 \quad -2x^2 \\ \hline -21x \quad -15 \quad 4 \end{array} \end{array}$$

$-2x^2 - 21x + 4$

$$\begin{array}{r} \underline{x + 2x - 9} + \underline{xy - 2} - \underline{3x} + \underline{2xy} - \underline{4} - \underline{3yx} \\ \begin{array}{r} x \quad -9 \quad xy \\ 2x \quad -2 \quad 2xy \\ 3x \quad -4 \quad -3xy \\ \hline 0x \quad -15 \quad 0xy \end{array} \end{array}$$

-15

$$\begin{array}{r} \underline{4x} + \underline{yz} - \underline{3} + \underline{2x} + \underline{4xyz} - \underline{x} + \underline{8} + \underline{2zy} - \underline{9} \\ \begin{array}{r} 4x \quad yz \quad -3 \\ 2x \quad 2yz \\ -1x \quad -9 \\ \hline 5x \quad 3yz \quad -4 \end{array} \end{array}$$

$5x + 3yz - 4 + 4xyz$