

Welcome Back Everyone!!

Identify the like terms

$$-9r^2, 4r, -9x^2, 3r^2$$

Multivariable or "mixed" terms

P. 72

With multivariable terms the **degree** of the term is the sum of the individual **exponents**. We don't actually add the exponents.

ab^1 A second degree term



$-2xy^4$ A fifth degree term



$3x^2y^3z^2$ A seventh degree term



Multivariable or “mixed” terms

For standard form, terms of equal degree can be written in any order but **often** decisions are made using alphabetical order.

b^2a is often rewritten ab^2 but a^2b is left alone.
 $b \cdot b \cdot a$ $a \cdot b \cdot b$ $a \cdot a \cdot b$

$2y^2 + 2x^2$ is usually rewritten $2x^2 + 2y^2$

Even though $7\underline{x} \cdot y$ and $5\underline{x} \cdot \underline{x}$ are both second degree terms, they are usually written in the order $5x^2 + 7xy$.

Simplify

$$3x^2y - 4yx - yx^2 + 8xy$$

0) alphabetize all terms

1) Identify like terms

2) combine (+/-)

$$3x^2y - 4yx - yx^2 + 8xy$$
$$2x^2y + 4xy$$

Simplify

$$-2x + 15 + 4xy - 2 - xy + 11x$$

Simplify

$$3a^2b - 5ba^2 + 6a^2b^2 + 3 - 9b^2 + 14b^2a^2$$

$$\boxed{3a^2b} + \boxed{-5a^2b} + \boxed{6a^2b^2} + \boxed{3} + \boxed{-9b^2} + \boxed{14a^2b^2}$$

$$\begin{array}{ccccccc} \text{3} & & \text{4} & & \text{Cons} & & \text{2} \\ -2a^2b & + & 20a^2b^2 & + & 3 & - & 9b^2 \end{array}$$

$$\boxed{20a^2b^2 - 2a^2b - 9b^2 + 3}$$

Assignment
p.73 (31-39)