

U2D5_T Simplifying Polynomials Part 1

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U2D5_T
Simplifin...

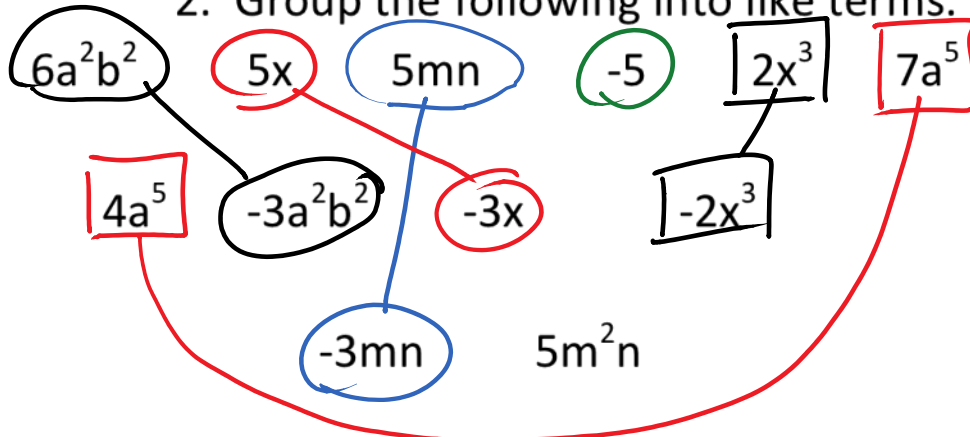
U2D5

Simplifying Polynomials Part 1

Warm Up: 1. Determine whether each pair of terms are “like” or “unlike”.

Terms	Like	Unlike
$x, 2x$	✓	
x, x^2		✓
$\underline{ab}, 2\underline{ab}$	✓	
a^2b, ab^2		✓

2. Group the following into like terms.



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COLLECTING LIKE TERMS

- Add or subtract like
terms only.

- Apply integer rules to the coefficients of like terms and keep the variable part the same.

Examples: Simplify. (Collect like terms.)

a) $\underline{5x} - \underline{3x}$
 $= 2x$

b) $\underline{-2x^3} + \underline{2x^3}$
 $= 0x^3$
 $= 0$

c) $\underline{5x} + \underline{2} + \underline{3x} + \underline{4}$
 $= 8x + 6$

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$$\begin{aligned} \text{d) } & \underline{4m} - \underline{3} - \underline{1m} + \underline{4} \\ & = 3m + 1 \end{aligned}$$

$$\begin{aligned} \text{e) } & \underline{3x^2} + \underline{5} + \underline{4} - \underline{\frac{1}{2}x^2} \\ & = \underline{\frac{6}{2}x^2} - \underline{\frac{1}{2}x^2} + \underline{5} + \underline{4} \\ & = \underline{\frac{5}{2}x^2} + \underline{9} \end{aligned}$$

$$\begin{aligned} \text{f) } & \underline{3a^2} - \underline{2ab} - \underline{2b^2} - \underline{ab} + \underline{b^2} - \underline{2a^2} \\ & = \underline{a^2} - \underline{3ab} - \underline{b^2} \end{aligned}$$

U2D5 **Simplifying Polynomials Part 1**

g) $2m^3n^2 + \frac{3m^2n^3}{2} - m^3n^2 - \frac{1}{2}m^2n^3$

NOTE: $\frac{3m^2n^3}{2} - \frac{1}{2}m^2n^3 = m^2n^3$

$= m^3n^2 + m^2n^3$

U2D5 HW: Page 151-152 #1-3,5-9 Challenge: page 153 #17