6.3 Mixed Simplifying

Recall Eliminating Parentheses

↳ look at what is directly in front of ( )

1. + → drop ( ) and keep all signs
2. − → drop ( ) and change signs in that set of ( )
3. # or variable → distribute

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***Examples*:**

1. $(4x-9y)+(5x-2y)$

$4x-9y+5x-2y$

$\boxed{9x-11y}$

2. $(5x+7)-(6x+9)$

$5x+7-6x-9$

$\boxed{-x-2}$

3. $4x+5(x+3)$

$4x+5(x)+5(3)$

$4x+5x+15$

$\boxed{9x+15}$

4. $4x(x^2+2x+3)+5x$

$4x(x^2)+4x(2x)+4x(3)+5x$

$4x^3+8x^2+12x+5x$

$\boxed{4x^3+8x^2+17x}$

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5. $3(x-8)-2x+7+5x$

$3(x)+3(-8)-2x+7+5x$

$3x-24-2x+7+5x$

$\boxed{6x-17}$

6. $3x(x-2)+2x(x+3)$

$3x(x)+3x(-2)+2x(x)+2x(3)$

$3x^2-6x+2x^2+6x$

$\boxed{5x^2}$

7. $9y+3(y+x)+2(y+2x)$

$9y+3(y)+3(x)+2(y)+2(2x)$

$9y+3y+3x+2y+4x$

$\boxed{7x+14y}$

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HOMEWORK

Worksheet HW 6.3 - Mixed Simplifying

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