**Notes on Simplifying Algebraic Expressions**

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| 1. To add or subtract, you *must have* like terms.
 | *Notes:*  |
|  Example: 2z + 4z + 3z = 9z Example: 5r – 2r = 3r$2z + 4z + 3z = 9z$ | *Additional Examples:* |
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| 1. To multiply or divide, you *don't need* like terms.
 | *Notes:*  |
|  Examples:  $5 · 2a = 10a$5(2z) = 10 z 12(3a) = 36a | *Additional Examples:* |
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| 1. As always, follow the Order of Operations. Use Math Properties to work your way through Order of Operations.

 | *Notes:* |
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|  Example:   Simplify: 4(x + 2) + 5(x + 3)  1. Distribute: 4x + 8 + 5x + 15
2. Commutative of Addition: 4x + 5x + 8 +15
3. Combine Like Terms: 9x + 23
4. Therefore: 4(x + 2) + 5(x + 3) = 9x + 23

 You try:  Simplify: 3(x + y) + 7( 2x + 3y)  | *Additional Examples and Notes:* |
| Practice Section:Simplify with a partner:1. (t + 5) + 4 (t - 1)
2. 5x + 10 ÷ 2 + 3(x - 1)
3. 12r ÷ 2 + 3s + 2 (2) + 4(s + y)
4. 3x + 3x2  - x + 2x
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