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| \*Learning Target: |
| \*Critical Content: |

-When we multiply binomials together, they follow certain patterns.

**Square of a Sum \_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Square of a Difference \_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Product of a Sum and Difference \_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Ex: Ex:

Ex: Ex:

Ex: Ex:

Ex: Each edge of a cube of Aluminum is 4cm less than each edge of a cube of copper. Write an equation to model the surface area of the aluminum cube.

Ex: Maggie has a garden that is *g* feet long and *g* feet wide. He wants to add 3 ft to the length and to the width.  
a) Model the area of the garden by using the square of a binomial.

b) Find the square of the binomial from part a.

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| **Square of a Sum** |  | | | |
| **Square of a Difference** |  | | | |
| **Product of a Sum and Difference** |  | | | |
| **Find each product. Try to use your shortcut rules from above instead of FOILing.** | | | | |
| **Square of a Sum** | | 1) | 2) | 3) |
| 4) | 5) | 6) |
| **Square of a Difference** | | 7) | 8) | 9) |
| 10) | 11) | 12) |
| **Product of a Sum and Difference** | | 13) | 14) | 15) |
| 16) | 17) | 18) |
| **Mixed Practice!** | | 19) | 20) | 21) |
| 22) | 23) | 24) |
| 25) | 26) | 27) |
| 28) The length of a rectangle is represented by the expression 3x + 2, and the width is also represented by 3x + 2. Find the area of this rectangle. | | | | |