

Part I – Conjugate Products

- 1) Multiply using double distribution:

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

$$(2x - 5)(2x + 5)$$

- 2) Try to identify a pattern to this type of binomial multiplication question. Make up a question and solve it using your pattern.

- 3) Multiply $(a - b)(a + b)$ to create an algebraic formula for this type of binomial multiplication.

- 4) Use your pattern and/or the formula to multiply the following more quickly than double distribution:

$$(x + 4)(x - 4)$$

$$(x - 9)(x + 9)$$

$$(3x + 7)(3x - 7)$$

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

- 5) Could you apply the pattern/formula to each product, explain:

$$(x + 6)(x + 6)$$

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

FMP10
Special Binomial Products

Part II – Binomial Squares

- 1) Multiply using double distribution:

$$(x + 3)^2$$

$$(2x - 5)^2$$

- 2) Try to identify a pattern to this type of binomial multiplication question. Make up a question and solve it using your pattern.

- 3) Multiply $(a - b)^2$ and $(a + b)^2$ to create algebraic formulas for this type of binomial multiplication.

- 4) Use your pattern and/or the formula to multiply the following more quickly than double distribution:

$$(x + 4)^2$$

$$(x - 9)^2$$

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

$$(5x - 3)^2$$

- 5) Could you apply the pattern/formula to each product, explain:

$$(x + 6)(x - 6)$$

$$(3x - 7)^3$$