

Factoring

1) Greatest Common Monomial Factoring: GCMF

Requirements: Must have common factors

Procedure: Find the GCMF (largest # and smallest exponent) and put that on the outside of one set of parentheses. Divide by the GCMF to get the quotient inside the parentheses. (reverse distributive)

2) Difference of perfect Squares: DOPS

Requirements: Must be a binomial, must be subtraction, both terms must be perfect squares.

Procedure: Write two sets of parentheses. One with a plus and one with a minus (you are creating conjugates). Then take the square root of the first term and place it in the first spot of each parentheses and then take the square root of the second term and place it in the second spot of each parentheses.

3) Trinomial Factoring: MAMS

Requirements: Must have no common factors, must be a trinomial, the a-term is equal to 1!

Procedure: Write two sets of parentheses. Place the first sign in the first set of parentheses and then multiply the two signs to get the second sign for the second set of parentheses. Then, find a number that multiplies to the last number (c-term) and adds to the middle number (b-term). (MAMS) *Make sure to put the bigger number first.

Calc Trick: $(y = \boxed{\#} \div \boxed{X})$ to find the factors

4) Tricky Trinomial Factoring:

Requirements: Must have no common factors, must be a trinomial, the a-term is greater than 1!

Procedure: Write two sets of parentheses. Place the first sign in the first set of parentheses and then multiply the two signs to get the second sign for the second set of parentheses. Write the a-term and the variable to the first power in the first spot of each parentheses. Then multiply the a-term by the c-term. Then, find a number that multiplies to that new product and adds to the middle number (b-term). (MAMS) *Make sure to put the bigger number first Don't forget to now simplify one or both sets of parentheses!

5) Factoring Completely: *Means to factor more than once!

Order: GCMF
DOPS
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