Factoring Notes Day 1 Fantastic Factorer: Date:

What does a polynomial look like in Factored Form?

1. Multiply $(x+4)(x+9)$ then factor $x^2+13x+36.$

2a. Multiply $(x-3)(x+11).$

2b. What patterns do you notice between the numbers in the factored forms and the standard forms in the problems above? (ex: where did the 13 come from in #1?)

3. Factor $x^2-12x+32$

4. Factor $2x^2 - 9x - 5$

5. Factor $3x^2 + 5x - 12$

You Try!

6. Factor $x^2 + 5x - 14$

7. Factor $4x^2 + 8x - 5$

8. Factor $x^2 - 81.$ Hint: what is the "b" value?

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Factor each of the following using whichever method you prefer.

1. $x^2 + 7x + 12$

2. $x^2 + 10x + 16$

3. $x^2 - 5x + 6$

4. $2x^2 + 12x + 10$

5. $2x^2 + 9x + 4$

6. $3x^2 + 17x + 10$

7. Create your own Quadratic expression and factor it!