Name: _____ Date: _____ **Unit 5 Class Work**

Factoring & Expanding Functions Class Work

Objective: *You will be able to rewrite quadratic expressions.*

★ **Names of Expressions**:

Expressions are typically named according to the number of terms they contain…

★ **Multiply/Expand Each Expression**

1. $3x(2x + 5)$
2. $(x – 3)(x + 8)$
3. $4(x + 2)(x – 7)$

*These problems were all provided in _____ form, and we re-wrote them in

_____ form.

★ **Factoring Expressions**:

Factoring is essentially the reverse of multiplying/expanding expressions.

Write each expression as a product of monomials and/or binomials.
(Factor out any common monomials first ☺)

4. $4x^2 – 24x$
5. $x^2 – 7x + 10$
6. $3x^2 – 6x - 45$

*These problems were all provided in _____ form, and we re-wrote them in

_____ form.

★ **More Practice**:

Write the standard form or intercept form of each expression (whichever is not provided).

A. $(k^2 - 8)^2$

B. $x^2 - 15x - 100$

C. $8x^2 - 32x + 24$

D. $x^3 + 18x^2 - 63x$

E. $(2p^2 + 3)^2$

F. $2x^4 + 6x^3 + 4x^2$

G. $16x^2 - 64$

H. $x^2 - 23x + 132$

I. $9x^2 - 81$

★ **Exit Slip:**

Factor each expression completely

1. $x^2 - 11x + 18$

2. $3x^2 - 9x - 84$