Name: _____ **Precalculus Unit 1, Lesson 2**

Aim: How do we factor by grouping?

I. Do Now: Factor completely.

1. $(x-6)^2-4$

2. x^4-8x^2-9

3. $a^2+8a+16$

4. $9x^2-6x+1$

5. $ab+bc$

Reminder:

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

$x^2+2xy+y^2=(x+y)^2$

$x^2-2xy+y^2=(x-y)^2$

II. Factoring by Grouping

In 6 – 10, factor completely.

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

7. $x^3+3x^2-9x-27$

8. $8x(2x-1)+(2x-1)^2$

9. $7(3x+2)^2(1-x)+(3x+2)(1-x)^3$

10. $(9x+2)(3x-4)-(3x-4)^2$