

# Module 1 – Special Products and Factoring

## Lesson 2 – Factoring

### Homework 1

Name \_\_\_\_\_

Find all solutions for each section. Show all work.

Factor the following by getting the greatest common factor (GCF).

1.  $2ab - 4ab^2$

2.  $36ax^2 - 12ax - 9a^2x$

3.  $2(q+r) - a(q+r)$

4.  $2xy + 4x^2y + 6x^3y^3$

5.  $16ax^2 - 12ax - 18a^2x$

Factor the following difference of two squares.

1.  $16a^2 - 49$

2.  $a^2 - 25$

3.  $100 - d^4$

4.  $49c^4d^4 - 100$

5.  $64x^6 - 9d^4$

Factor the following perfect square trinomial

1.  $81a^2 + 18a + 1$

2.  $y^2 + 10y + 25$

3.  $4x^2 - 12xy + 9y^2$

4.  $y^2 + 8y + 16$

5.  $9n^2 - 24n + 16$

Factor each quadratic trinomial. Check your answer by getting the product of the factors.

1.  $6x^2 - 13x - 5$

2.  $2x^2 + 13x + 15$

3.  $8m^2 + m - 9$

4.  $3y^2 - 11y + 6$

5.  $6c^2 - 5cd - d^2$