



Name: \_\_\_\_\_

Date Started: \_\_\_\_\_ Date Completed: \_\_\_\_\_ Score: \_\_\_\_\_

## Learning Activity Sheet

### Factoring Polynomials with Common Monomial Factors

**A. Choose the letter of the correct answer.**

1. What is the process of rewriting a polynomial as a product of polynomials of lesser degree?
  - a. Eliminating
  - b. Factoring
  - c. Multiplying
  - d. Simplifying
2. Which of the following are the factors of  $x^2 - y^2$ ?
  - a.  $x^2$  and  $y^2$
  - b.  $(x + y)$  and  $(x + y)$
  - c.  $(x + y)$  and  $(x - y)$
  - d.  $(x - y)$  and  $(x - y)$

**B. Answer the questions below.**

1. Describe what happens if you use factor 2a rather than the GCF  $4a^2$  from  $12a^2 - 16a^2$ .
2. The binomial  $9x^2 + 36$  is a sum of two squares that can be factored. How will you factor this binomial? When can the sum of two squares be factored?

**C. Factor each polynomials.**

Find the GCF of each pair of monomials.

1.  $12a$  and  $36ab$       2.  $6a$  and  $20a^2b$

Factor completely.

$$3. \quad 5x + 10 \qquad \qquad \qquad 4. \quad 25x^2 y^2 - 55xy^3$$

Factor each polynomials

$$5. \quad 5a(a + 3) - c(a + 3) \quad 6. \quad 6(3b - 1) + 5a(1 - 3b) + 4c(3b - 1)$$