Name: _____

Date Started: _____ Date Completed: _____ Score: _____

Learning Activity Sheet
Factoring the Sum and Difference of Two Cubes

A. Choose the letter of the correct answer.

1. Which of the following is a sum of two cubes?
   a. $6x^3+ (2)^3$
   b. $x^3 +(-1)^3$
   c. $64x^3 + 9y^3$
   d. $8x^3 + (-27)^2$
2. Which of the following is a difference of two cubes?
   a. $8x^5 - (-5)^3$
   b. $12x^9 - 9y^3$
   c. $(-3x)^3-6y^3$
   d. $27x^3 + (-3y)^3$
3. Which of the following is a sum of two cubes?
   a. $x^3 + (-4)^6$
   b. $x^3 + (-2)^3$
   c. $9x^3 + (5)^3$
   d. $8x^3 + 121y^3$
4. Which of the following is a difference of two cubes?
   c. $x^6 - (-3)^3$
   d. $6x^9 - 15y^3$
   c. $8x^3 + (-4y)^3$
   d. $(-5x)^3 - 12y^3$

B. Factor each completely.

1. $a^3 + 27$
2. $64c^3 - d^3$

C. Identity whether the items are sum of two cubes (STC) or difference of two cubes (DTC).

_____ 1. $m^3 - 64$
_____ 2. $27 + 8p^3$
_____ 3. $343v^3 - 27w^6$
_____ 4. $27(c + d)^3 - e^3$