LEARNING AS ONE NATION

Expanded Project

Math 10_20

JHS LEARNING ACTIVITY

Name: _____ **Grade/Score:** _____

Grade and Section: _____ **Date:** _____

Subject *(Check or choose from below.)*

- ☐ Religion/Values Education
- ☐ Natural Sciences
- ☐ Araling Panlipunan
- ☐ Filipino
- ☐ English
- ☐ Math
- ☐ TLE / ICT
- ☐ MAPEH
- ☐ HGP _____

Type of Activity *(Check or choose from below.)*

- ☐ Concept Notes
- ☐ Skills: Exercise / Drill
- ☐ Performance Task
- ☐ Illustration
- ☐ Formal Theme
- ☐ Informal Theme
- ☐ Others: _____

Activity Title: Review: Factoring Polynomials

Learning Target: To factor polynomials.

References: J.E.A. Mangyao and D.J. Acedo, CVIF Learning Activities

Examples: Factor the polynomials.

1) Factor by grouping

$4xy + 2x = 2x(2y) + 2x(1)$

$= 2x(2y + 1)$

(Note, $2x$ is a common factor of the two terms on the left side of the equation.)

2) Factoring the difference of two squares

$a^2 - 36 = (a + 6)(a - 6)$

(Get the principal square root of each of the two squares: $\sqrt{a^2} = a$ and $\sqrt{36} = 6$; then form two factors: one a sum and the other a difference.)

3) Factoring Trinomials (perfect square)

$x^2 + 8x + 16 = (x + 4)(x + 4)$

(Note, $x^2 + 8x + 16$ is a perfect square trinomial since $\sqrt{x^2} = x$ and $\sqrt{16} = 4$.)

4) Factoring Trinomials (general)

$2y^2 + y - 6 = (2y - 3)(y + 2)$

[Note, $2y^2 = (2y)(y)$ and $(-6) = (-3)(2)$; while for the middle term, $y = -3y + 2y$.]

Exercises: Give the factors of the following polynomials.

a) $3xy - 12y$

b) $4x - 8$

c) $9x^2 - 16$

d) $y^2 + 14y + 49$

e) $x^2 + 3x - 40$