

SECTION 4.4: FACTORING POLYNOMIALS – PART 2

Homework: _____

Learning Targets:

- 4c. Factor polynomial functions by graphing, grouping, and quadratic techniques.

Determine if a binomial is a factor: Use synthetic (or long) division to see if there is a _____

If there is one, then it is _____ a factor.

Is $x + 5$ a factor of $3x^4 + 15x^3 - x^2 + 25$?

Finding remaining factors when given 1: Use synthetic (or long) division to find the remaining factors

$$x^4 + 3x^3 - x - 3; x + 3$$

Given factors, graph the function: Graph the _____ (opposite of _____) and the
y-intercept by _____ the _____

$$f(x) = (x + 2)(x - 3)(x + 5)$$