NAVIGATING THE GREAT DIVIDE

Example 1

$2x+5\overline{)2x^3+19x^2+x-85}$

Example 2

$3x+2\overline{)6x^2+0x-3}$

Example 3

If one factor is x+5, identify all other factors of this function in three ways.

$x^3+2x^2-25x-50$

Graphing

Zeros:

Factoring

$x^3+2x^2-25x-50$

Factors:

Dividing

$x+5\overline{)x^3+2x^2-25x-50}$

Example 4

Find the roots of $y = x^4 - 2x^3 - 5x^2 + 4x + 6$