Station One: Verifying a factoring using division.

Is $3x + 1$ a factor of $3x^4 + 10x^3 - 3x^2 + 16x + 6$?

Station Two: Verifying a factoring using division.

Is $x - 7$ a factor of

$x^6 - 7x^5 + 3x^4 - 19x^3 - 14x^2 + x - 7$?

Station Three: Verifying a factoring using division.

Is $-4x + 1$ a factor of

$-4x^5 + x^4 - 12x^2 + 7x - 1$?

Station Four: Convert to Factored Form

$$y = (x - \sqrt{3})(x + \sqrt{3})(x - 3i)(x + 3i)$$

Station Five: Using given information to determine the general form equation.

Given a root at 4, a double root at -2, and imaginary roots at +/- 6*i*, find the general form equation assuming the scale factor is 1.

Station Six: Determining if a number is a zero.

Is 6 + 5*i* a root of $x^3 - 10x^2 + 27x + 102$?

Station Seven: Using given information to determine the general form equation.

Given roots at 7 and $\pm 2\sqrt{3}$, find the general form equation that passes through the point (4, -12).

Station Eight: Finding the vertex given factored form.

Given roots at $7 \pm \sqrt{2}$ and a scale factor of 3, find the vertex of this parabola.