I can apply Descartes Rule of Signs to determine the number of positive, negative, and imaginary zeros of a polynomial. I can apply the Rational Zeros Theorem to a polynomial function to determine the potential Rational Zeros.

Descartes Rule of Signs:	Example Application of Descartes Rule of Signs:
Let f denote a polynomial function written in standard form. Given a polynomial with integer coefficients written in standard form, the number of positive real zeros of f either equals the number of variations in the sign of the nonzero coefficients of $f(x)$ or else equals that number less and even integer. The number of negative real zeros of f either equals the number of variations in the sign of the nonzero coefficients of f(-x) or else equals that number less and even integer.	$f(x) = x^3 - 4x^2 + 5x - 8$

Given the polynomial below, use Descartes Rule of Signs to determine the number of positive, negative and imaginary roots.

1) $f(x) = x^3 + 6x^2 + 11x + 6$	2) $f(x) = x^5 - x^4 + 3x^3 + 9x^2 - x + 5$
3) $f(x) = 2x^3 - 2x^2 + x + 5$	4) $f(x) = 2x^3 + 11x^2 - 7x - 6$
5) $f(x) = 7x^5 - 3x^3 + x - 20$	6) $f(x) = x^5 + 3x^4 + x^3 - x^2 + x - 1$

Rational Zeros Theorem	Example application of the Rational Zeros Theorem:
Let f be a polynomial function of degree 1 or higher of the form $f(x) = a_n x^n + a_{n-1}x^{n-1} + \cdots + a_1 x + a_0$ and $a_n \neq 0, a_0 \neq 0$ where each coefficient is an integer. If $\frac{p}{q}$, in lowest terms is a rational zero of f, then p must be a factor of a_0, and q must be a factor of a_n.	$f(x) = x^4 - 4x^3 - 7x^2 + 22x + 24$
Given the polynomial below, create a list of all the potential rational zeros using the Rational Zeros Theorem.	
1) $f(x) = 3x^3 + 4x^2 - 5x - 2$	2) $f(x) = 2x^3 + 3x - 5$
3) $f(x) = 2x^3 + 11x^2 - 7x - 6$	4) $f(x) = 3x^3 - 7x^2 - 14x + 24$

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