

Name : _____ ID. # : _____ SER. # : _____

1. Let $p(x)$ be a polynomial with **real** coefficients. If $1+3i$ is a zero of $p(x) = x^4 - 2x^3 + 7x^2 + 6x - 30$, then find the **other zeros**. (5 pts)

2. Find all **intercepts**, **asymptotes**, and **missing points** (if any) of $y = f(x) = \frac{x^2 - x}{(x^2 - 1)(x - 2)}$.
Then **graph** f . (5 pts)

Name : _____ ID. # : _____ SER. # : _____

1. Find **all zeros** of the polynomial $p(x) = 3x^4 - 4x^3 + x^2 + 6x - 2$. (5 pts)

2. Find all **intercepts**, **asymptotes**, and **missing points** (if any) of $y = f(x) = \frac{x^2 - 1}{x^2 + x - 2}$.
Then **graph** f . (5 pts)

Name : _____ ID. # : _____ SER. # : _____

1. Find **all zeros** of the polynomial $p(x) = x^4 - 3x^3 + 5x^2 - x - 10$. (5 pts)

2. Find all **intercepts**, **asymptotes**, and **missing points** (if any) of $y = f(x) = \frac{x^3 - x^2 + x}{x^2 - x}$.
Then **graph** f . (5 pts)