

## Calculus I – 3.5 & 3.6 – Curve Sketching

1. Find an equation of the slant asymptote.

$$f(x) = \frac{x^2+4}{x+4}$$

2. Find an equation of the slant asymptote.

$$y = \frac{3x^4+x^2+x}{x^3-x^2+4}$$

3. Graph the function

$$f(x) = \frac{x^2(x+1)^3}{(x-2)^2(x-4)^4}$$

4. How does the graph of the function below vary as  $c$  varies?

$$f(x) = \frac{4}{x^2 + 2x + c}$$