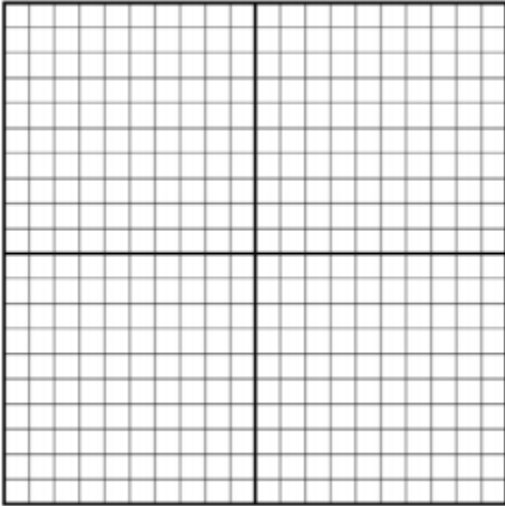


Oblique (Slant) Asymptotes

Name: _____

Graph each of the following functions and identify the following attributes.

1) $f(x) = \frac{x^3}{2x^2-8}$



Domain: _____

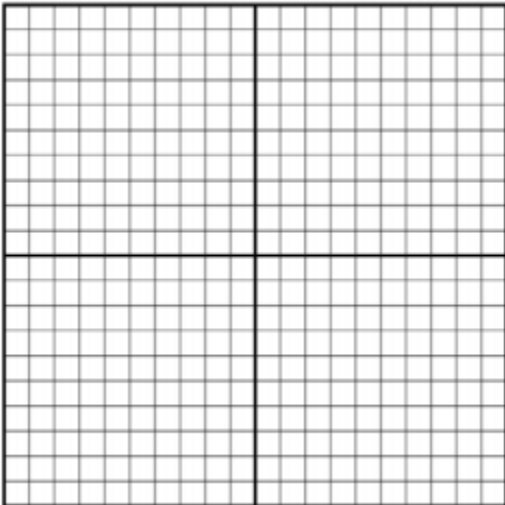
Zero(s): _____

Vertical Asymptote(s): _____

Oblique Asymptote: _____

Hole(s): _____

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



Domain: _____

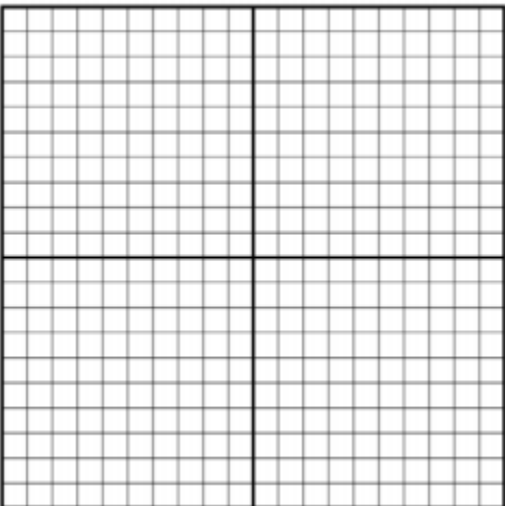
Zero(s): _____

Vertical Asymptote(s): _____

Oblique Asymptote: _____

Hole(s): _____

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



Domain: _____

Zero(s): _____

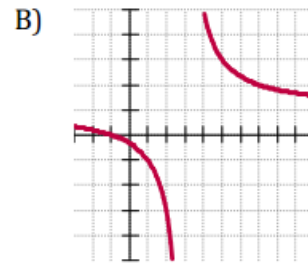
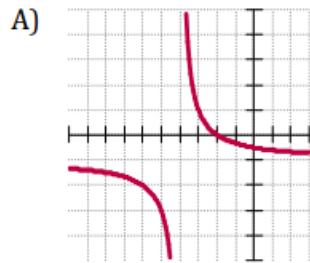
Vertical Asymptote(s): _____

Oblique Asymptote: _____

Hole(s): _____

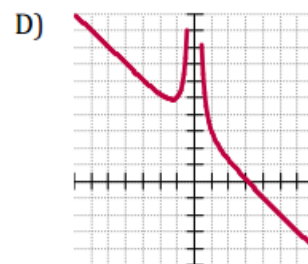
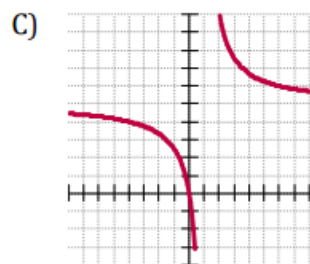
Match each equation with its graph based on the asymptotes. (Don't use a calculator!)

4) _____ $f(x) = \frac{1}{x-1}$



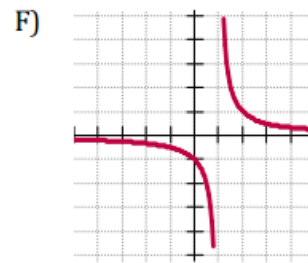
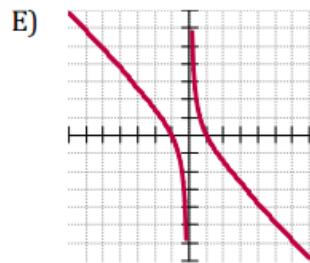
5) _____ $f(x) = \frac{5x}{x-1}$

6) _____ $f(x) = \frac{3x^2}{x^2-1}$



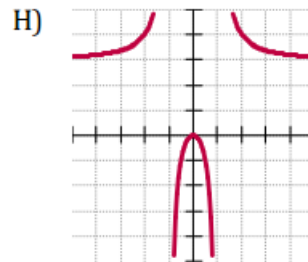
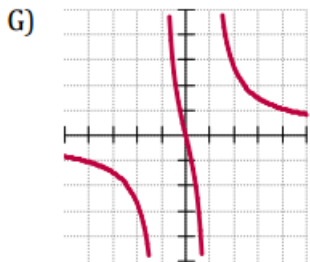
7) _____ $f(x) = \frac{4x}{x^2-1}$

8) _____ $f(x) = -\frac{x+2}{x+4}$



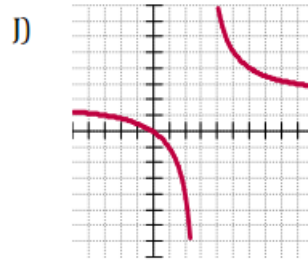
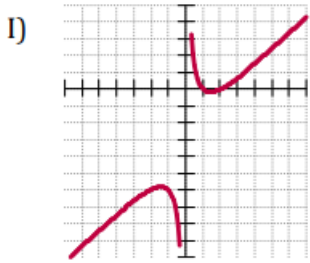
9) _____ $f(x) = \frac{x-1}{x-4}$

10) _____ $f(x) = \frac{x+1}{x-3}$



11) _____ $f(x) = \frac{2x}{x-3}$

12) _____ $f(x) = \frac{1-x^2}{x}$



13) _____ $f(x) = \frac{x^2-3x+2}{x}$

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

