2-7 Notes Graphing Rationals
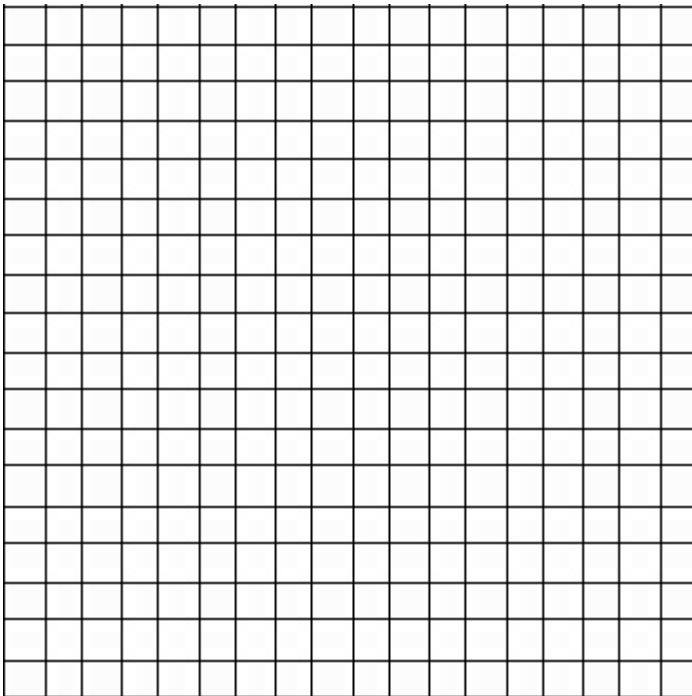Pre-Calculus

Name _____

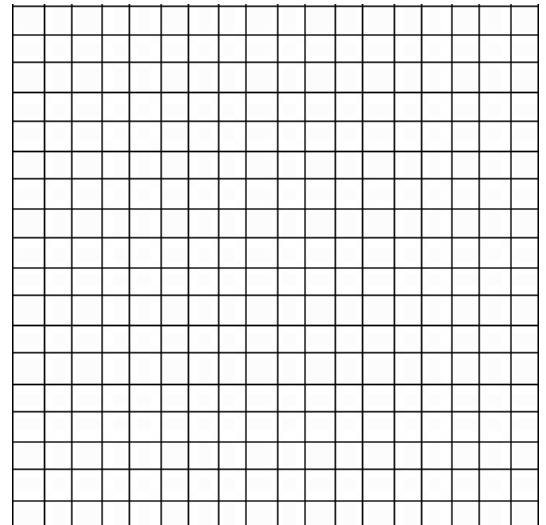## I. Analyze the Graph of a Rational Function
1. Factor numerator & denominator.
2. Write R in lowest terms. Find domain.
3. Locate intercepts.
4. Locate vertical asymptotes.
5. Locate horizontal or oblique asymptotes.
   Determine if R intersects this asymptote.
6. Use a graphing calculator to help graph
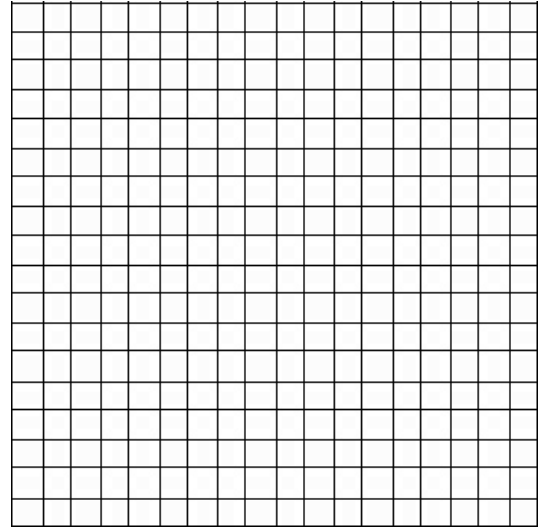   R by hand.

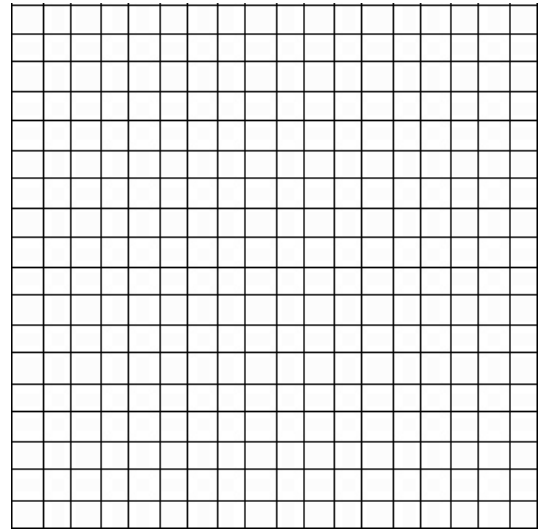$$R(X) = \frac{x-1}{x^2-4}$$

II. Examples
1. $$R(x) = \frac{2x^2 - 5x + 2}{x^2 - 4}$$

2. $R(x) = \dfrac{2x^2 - 5x + 2}{x^2 - 4}$

3. $R(x) = \dfrac{x^4 + 1}{x^2}$

4. $R(x) = \dfrac{3x^2 - 3x}{x^2 + x - 12}$