Name _____ Quarter 2

Pre-Calculus Test 3 - Review

Show all work on a separate sheet of paper. Make sure to study your notes and homework as well.

1. Sketch each function using a minimum of 2 points. For each graph, state the domain, range, intercepts, and the equations of any asymptotes.

   a. $y=\frac{1}{(x+4)^2}-2$

   b. $y=-\frac{1}{x+2}$

   c. $y=\frac{1}{-(x+3)}+1$

   d. $y=-\frac{3}{x^2}$

2. Sketch each function. For each graph, state the domain, range, intercepts, coordinates of any holes, and the equations of any asymptotes.

   a. $y=\frac{x^3-1}{x-1}$

   b. $y=\frac{x-4}{x^2-16}$

   c. $y=\frac{x^3-3x^2-4x+12}{3-x}$

   d. $y=\frac{2-5x-3x^2}{x+2}$

3. Complete the chart below.

Function	Hole(s)	Vertical Asymptote(s)	Horizontal Asymptote	Oblique Asymptote	x-intercept(s)	y-intercept
$y=\frac{3-x}{x^2-9}$						
$y=\frac{3x^4}{x^4+x}$						
$y=\frac{x^2+2x-24}{x+6}$						
$y=\frac{x^2+3x+2}{x-2}$						
$y=\frac{x^3-3x^2}{x^2-1}$						