Name_____

CALCULUS CH. 1 JOURNAL
Precalc Review

1. What must be considered to find the domain of each of the following types of functions?

   Rational Function _____

   Polynomial _____

   Odd Root _____

   Even Root _____

2. To find the domain of a function created by the combination of two functions such as $f + g$ or $f \circ g$, you must consider _____

   and _____ .

3. When a rational function has factors in the numerator and denominator which cancel, a _____ will occur in the graph at the point where _____

4. The two steps for finding the equation of the inverse of a function are:

   1)_____ 2)_____.

5. The inverse function of $y = e^x$ is _____.

6. a) When breaking a rational expression into partial fractions, you determine whether to put A, $Ax + B$, or $Ax^2 + Bx + C$ in the numerator by _____

   _____.

   b) If the factors of the denominator of a rational expression are $x^3 (x^2 + 5)$, then the fractions which must be included in the set up are _____ .

7. Holes occur in a graph when _____

   _____

8. To break an absolute value function into a piecewise function with no absolute value, you must

   1) _____

   2) _____ .

9. The x-coordinate of the vertex of a parabola whose equation is in <u>standard</u> form can be found by _____ while the y-coordinate can be found by _____ .

10. Important Rules, Formulas, Etc.
    List the following rules, formulas, or steps. <u>When giving formulas, be sure to indicate what each part of the formula represents</u>.

    a) Three properties of logarithms

b) Definitions of six trig functions in terms of x, y, & r

c) Quadrants where trig functions are positive

(d) Quadrants where inverse trig functions are defined

e) Show how to identify each o f the following using the equation $y = a$ _____ $(bx + c) + d$ where the blank is filled in by one of the trig functions at the top of the chart.

	sin or cos	**sec or csc**	**tan or cot**
Amplitude			
Period			
Phase Shift			
Vertical Shift			

f) Slope-intercept form of a line

(f) Point-slope formula

g) Quadratic formula

11. Attach your graph paper showing all the common graphs and the transformation rules.