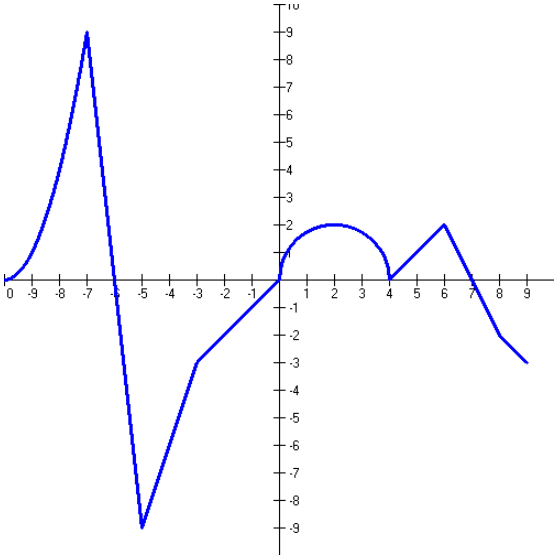
Pre-Calculus Problem of the Week Name _____

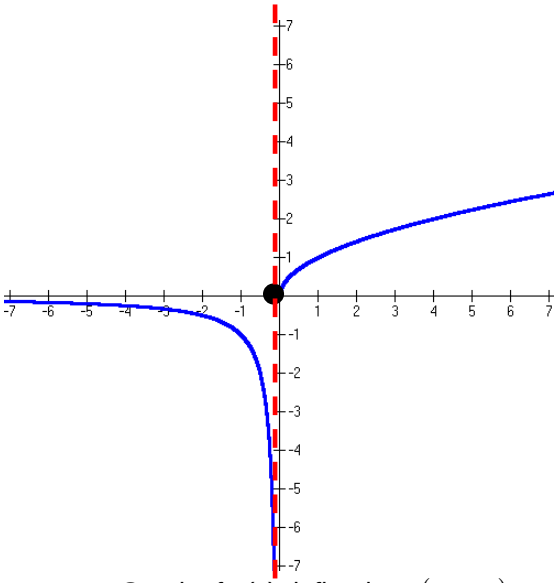
DUE NO LATER THAN 1/20/10 AT 8:00 AM

This week's POW will involve the two graphs given below:



Graph of f(x) defined on [-10, 9]

1. On what interval(s) if f(x) decreasing?
2. Where is the maximum of f(x)?
3. What are the zeros of f(x)?
4. State the domain of f(x) using interval notation.
5. State the range of f(x) using interval notation.



Graph of g(x) defined on $(-\infty, \infty)$

1. On what interval(s) is g(x) concave down?
2. State the range of g(x) using interval notation
3. State the interval(s) on which g(x) is decreasing.
4. State the maximum value of the function (if any).
5. If g(x) represents a piecewise function with two pieces, write the equation of this piecewise function.