Name_____ ID No._____

1) Let $y = \dfrac{x + 2}{x^2}$

   (a) Determine all x - and y-intercepts.

   (b) Determine equations of all vertical asymptotes and non-vertical asymptotes.

   (c) Determine y' and y''.

   (d) Determine intervals on which the function is increasing; determine intervals on which the function is decreasing.

   (e) Determine the coordinates of all relative maximum and relative minimum points.

   (f) Determine intervals on which the function is concave up; determine intervals on which the function is concave down.

   (g) Determine the coordinates of all inflection points.

   (h) With the aid of the information obtained in parts (a) - (g), give a reasonable sketch of the curve.