1) Let $y = \frac{x^2}{x - 2}$

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

(b) Determine equations of all 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.