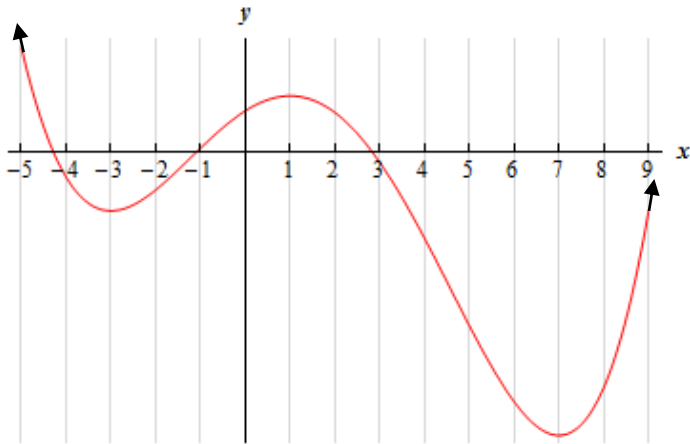1. Below is the graph of $f'(x)$. Determine upon which interval(s) $f(x)$ is concave up.

Graph of $f'(x)$

2. For $f(x) = 2x^3 - 9x^2 - 60x$ answer each of the following questions.
   a) Identify the critical numbers of the function
   b) Determine the open interval(s) on which the function is decreasing.
   c) Classify the critical numbers as relative maximums, relative minimums, or neither.
   d) Does the function have a point of inflection? Show work to justify your answer. If so, find it.

3. For the function below, sketch a detailed graph of f(x). (Label the significant points on your graph)

$$y = \frac{7x^2 - 7}{x^3}$$
$$\sqrt{6} \approx 2.45 \qquad \sqrt{3} \approx 1.73$$

Make a detailed table similar to your HW problems, in which you should:

 (a) Identify the critical numbers of the function.

 (b) Identify the possible inflection points of the function.

(c) Determine the open intervals on which the function increases and decreases.

(d) Classify the critical points as relative maximums, relative minimums or neither.

(e) Determine the open intervals on which the function is concave up and concave down.

(f) Don't forget your x and y intercepts, and Asymptotes (if any)