1. A. On what interval is $f$ increasing?

B. On what interval is the graph of $f$ concave up?

C. At what x-values does $f$ have local extrema?

D. What are the x-values of all inflection points of the graph of$ f$?

E. Sketch a possible graph of $f$.

1. A. Find the x-coordinates of all local extrema and points of inflection of $f$.



B. Sketch a possible graph of $f$.

1. $f^{'}\left(x\right)=4x^{3}-12x^{2}$
2. Identify where the extrema of $f$ occurs.



1. Find the intervals on which $f$ is increasing and decreasing.
2. Find where the graph of $f$ is concave up and concave down.

Sketch a possible graph for $f$.