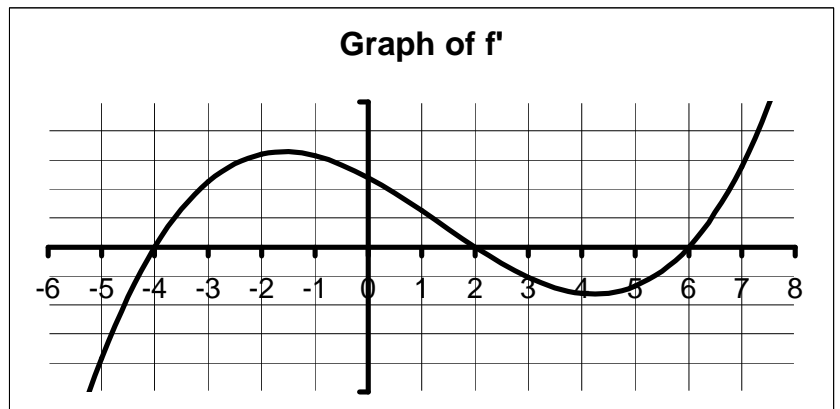


NAME \_\_\_\_\_

The graph to the right is the graph of  $f'$ , the **derivative** of a function  $f$ . Note that the graph of  $f$  is not shown.

If the function  $f$  is defined for all  $x$ , use this graph to answer the following questions.



1. List the critical numbers of  $f$ .
2. On what interval(s) is the function  $f$  increasing?
3. On what interval(s) is the function  $f$  decreasing?
4. At what value(s) of  $x$ , if any, does  $f$  have a local maximum?
5. At what value(s) of  $x$ , if any, does  $f$  have a local minimum?
6. List the hypercritical numbers of  $f$
7. On what interval(s) is the function  $f$  concave upward?
8. On what interval(s) is the function  $f$  concave downward?
9. At what value(s) of  $x$  does  $f$  have an inflection point?