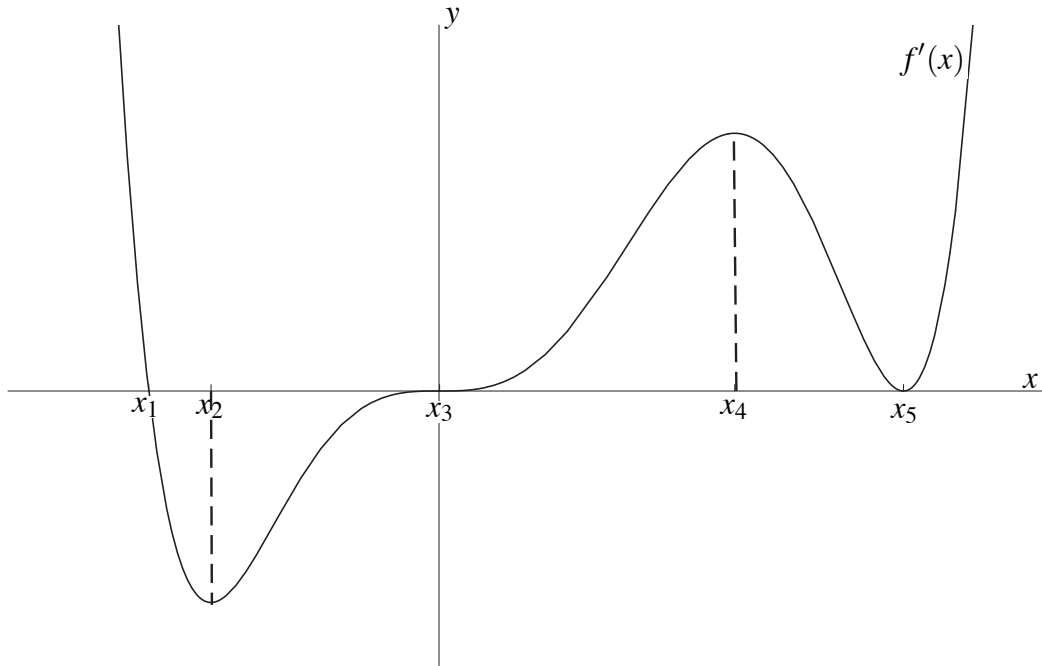


1. (12 points) The graph below is a plot of  $f'(x)$  (the *derivative* of  $f$ ). Use the graph to answer questions about the function  $f$ .



- (a) What are the critical points of  $f$ ? \_\_\_\_\_
- (b) For what value(s) of  $x$  does  $f$  have a local maximum? \_\_\_\_\_
- (c) For what value(s) of  $x$  does  $f$  have a local minimum? \_\_\_\_\_
- (d) What are the inflection points of  $f$ ? \_\_\_\_\_
- (e) On what interval(s) is  $f$  concave up? \_\_\_\_\_
- (f) If  $f$  is a polynomial, what is the minimal degree of  $f$ ? \_\_\_\_\_