

# **Math 131 - Quiz 9**

November 15, 2023

Name \_\_\_\_\_

Score \_\_\_\_\_

Show all work to receive full credit. Supply explanations when necessary.

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1. (10 points) Let  $f(x) = 3x^4 - 8x^3$ . Use the first derivative test to determine open intervals on which  $f$  is increasing/decreasing and to classify the critical numbers of  $f$ . Then use the second derivative test to find open intervals on which the graph of  $f$  is concave up/down and to determine any inflection points.