

MATH 141: QUIZ 7 SECTIONS 4.1-4.3

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Name: _____

No phone or calculator. You must show all work to receive full credit. Be sure to make reasonable simplifications.

1. **(5 points)** Find the absolute maximum and minimum values of $f(x) = x(2 - x)^3$ over the interval $[1, 3]$.

2. **(5 points)** For the function $f(x) = \frac{1}{3}x^3 - x$,
- (a) State the intervals of increase and decrease, and
 - (b) State the local maximum and minimum points.