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Name: \_\_\_\_\_

QUIZ 15 

MATH 200  
October 12, 2023

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1. (10 points) This problem concerns the function  $f(x) = \sqrt[3]{8 - x^3}$ .


(a) Find the critical points of  $f$ .

(b) Find the intervals on which  $f$  increases and on which it decreases.

(c) Use your answer from part (a) to identify the locations ( $x$  values) of any local extrema of  $f$ .

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Name: \_\_\_\_\_

QUIZ 15 

MATH 200  
October 12, 2023

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1. (10 points) This problem concerns the function  $f(x) = \tan^{-1}(x^2 + x - 2)$ .

(a) Find the critical points of  $f$ .

(b) Find the intervals on which  $f$  increases and on which it decreases.

(c) Use your answer from part (a) to identify the locations ( $x$  values) of any local extrema of  $f$ .