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

QUIZ 16 

MATH 200  
March 29, 2022

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1. (10 points) Use the second derivative test to find the local extrema of  $f(x) = x^3 - 2x^2 + x$ .

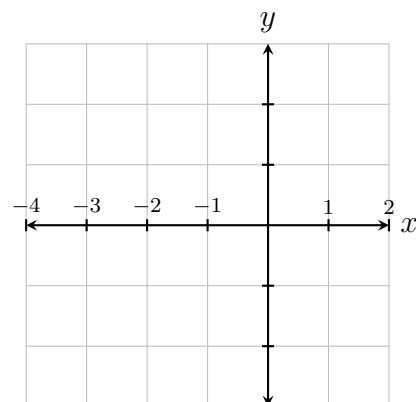
2. (10 points) This problem concerns the function  $f(x) = xe^x$

(a) Find the intervals on which  $f$  is increasing/decreasing.

(b) Find the intervals on which  $f$  is concave up/down.


(c) List any inflection points.

(d) Based on this information, sketch the graph of  $f$ .



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QUIZ 16 

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1. (10 points) Use the second derivative test to find the local extrema of  $f(x) = 2x^3 - 3x^2 + 10$ .

2. (10 points) This problem concerns the function  $f(x) = xe^x$

(a) Find the intervals on which  $f$  is increasing/decreasing.

(b) Find the intervals on which  $f$  is concave up/down.

(c) List any inflection points.

(d) Based on this information, sketch the graph of  $f$ .

