

# Math 132 - Quiz 1

January 20, 2021

Name \_\_\_\_\_

Score \_\_\_\_\_

Show all work to receive full credit. Supply explanations when necessary. This quiz is due January 27.

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1. (4 points) Find the total combined area of the bounded regions between the graphs of  $y = x^3 - x^2$  and  $y = 2x$ .

*Turn over.*

2. (3 points) Find the area of the bounded region enclosed by the graphs of  $y = 3$ ,  $y = e^x$ , and  $y = e^{-x}$ .

3. (3 points) Find the area of the 1st-quadrant region between the graphs of  $x^2 = y^3$  and  $x = 3y$ .