

QUIZ 4 - MATH 152

Friday, September 25

YOUR NAME: _____

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Read each problem **very carefully** before starting to solve it and do only what is asked. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. [4 points] Calculate the volume of the solid resulting by revolving the region enclosed by $y = 2x^2$ and $y = 2$ around the x -axis.

2. [8 points] Consider the region R enclosed by the graphs of $x = 0$, $y = e$ and $y = e^x$.

(a) Make a quick drawing of the region.

(b) Use the washer method to compute the volume of the solid resulting by revolving the region R around the x -axis.

(c) Use cylindrical shells to calculate the volume of the **same solid** and check that you get the same answer as in (b).