# QUIZ 3 - MATH 152                     Friday, February 3

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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. [8 points] Compute the following integrals:

   (a) $\int \sqrt[3]{x} \ln x \, dx$

   (b) $\int x \cos x \, dx$

2. [4 points] Consider the region enclosed by the graphs $y = \cos x$, $x = 0$ and $y = \frac{1}{2}$.

(a) Make a sketch of the region.

(b) Compute the volume of the solid resulting by revolving the region around the $y$-axis.