QUIZ 9 - MATH 112   Friday, April 14

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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. [5 points] Suppose a company's marginal profit is given by $\mathsf{MP}(x) = 3x^2 - \dfrac{2}{\sqrt{x}}$, where x is
   the number of items sold in thousands and the profit is in millions of dollars. Find the profit
   of the company from the sales of items 4,000-25,000.

2. [5 points] Find the average value of the function $f(x) = e^{\frac{1}{2}x} + \dfrac{2}{\sqrt[3]{x}}$ from $x = 0$ to $x = 8$.