EXAM 1 - MATH 152

Friday, February 3

YOUR NAME:_____

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Read each problem **very carefully** before starting to solve it. Each problem is worth 10 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Compute the integral $\int \dfrac{x}{1 + x^4} \, \mathrm{d}x$.

2. Calculate the integral $\int_1^5 \dfrac{\ln x}{x^3} \, \mathrm{d}x$.

3. Calculate the integral $\int \sqrt{1 - x^2} \, \mathrm{d}x$.

4. Calculate the integral $\int \dfrac{7x^2 + 5}{x^3 + x}\, \mathrm{d}x.$

5. Compute the integral $\displaystyle\int_{-2}^{14} \dfrac{1}{\sqrt[4]{x + 2}}\, \mathrm{d}x.$