

**Math 112**  
**Quiz 1**  
**Wednesday, January 23, 2008**

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1. Evaluate  $\lim_{x \rightarrow 1} \frac{\ln x}{x^2 - x}$ .

2. Evaluate  $\int \frac{\sqrt{1 + 1/x}}{x^2} dx$ .

3. Evaluate  $\int_0^\pi \sin^3 x \cos x \, dx$ .

4. Evaluate  $\int x^2 e^x \, dx$ .