Instructor: Prof. A. Suciu                    Name: _____

**MTH 1124**                   **Calculus 2**                   **Winter 2001**

# QUIZ 5

**Instructions**: Put your name in the blanks above. Show your work—if there is not enough room, use another sheet. Give either **exact** answers, or numerical answers, precise to **at least** 3 decimals.

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**(1)** [4 points] Compute:  $\displaystyle\int \theta \sin(\theta/4)\, d\theta =$

**(2)** [4 points] Compute:  $\displaystyle\int \arctan(3x)\, dx =$

**(3)** [4 points] Compute: $\displaystyle\int \frac{1}{t^2 - t - 6}\, dt =$

**(4)** [4 points] Compute: $\displaystyle\int_{1}^{e^2} x^2 \ln x \, dx =$

**(5)** [4 points] Compute: $\displaystyle\int_{\pi/2}^{\pi} \frac{6}{x^2 + 9}\, dx =$