

Math 102 (Semester 132)  
**Quiz Two**

Name: \_\_\_\_\_  
ID Num: \_\_\_\_\_  
Section: \_\_\_\_\_ Serial Number: \_\_\_\_\_

1. Evaluate

$$I = \int \frac{1+x}{x(x^2+1)^2} dx.$$

2. (a) Evaluate

$$\int_2^3 \frac{1}{2x-5} dx.$$

(b) Do the following integrals converge or diverge? Give reasons.

i.  $\int_3^{\infty} \frac{1}{1-x} dx.$

ii.  $\int_0^{\infty} \frac{1}{\sqrt{2x}} dx.$

iii.  $\int_0^{\infty} e^{-2\ln(x+1)} dx.$