

Name: _____

Partner: _____

Quiz # 5

You may work with ONE partner to complete this quiz. Apart from this, the normal rules for quizzes apply, i.e. there are NO books, notes, or calculators allowed, and you are NOT permitted to confer with other groups. Each partner should turn in his or her own quiz.

1. Evaluate the following integral.

$$\int \frac{5x + 11}{x^2 + 3x + 10} dx$$

2. Evaluate the following limits.

(a) $\lim_{x \rightarrow 0} \frac{3x}{x + e^x - 1}$

(b) $\lim_{x \rightarrow \infty} x \tan(1/x)$

3. Determine whether or not the following improper integral converges or diverges. If the integral converges, evaluate it.

$$\int_1^{\infty} \frac{4}{x^3} dx$$