

## Open Book Quiz

Intermediate Calculus & Analytic Geometry (MATH 242 A) Date: October 21, 2013

Name:

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1-3. Use L'Hospital's rule to find the limit:

1.  $\lim_{x \rightarrow \infty} \left(1 + \frac{5}{x}\right)^x$

2.  $\lim_{x \rightarrow 0} \cot 5x \cdot \sin 10x$

3.  $\lim_{x \rightarrow \infty} x \sin\left(\frac{5\pi}{x}\right)$

4-5. Integrate:

4.  $\int t \sec^2 8t \, dt$

5.  $\int e^{6t} \cdot \sin 7t \, dt$