

Review Problems

November 4, 2016

1. (Fall 2002, Exam 3, #3)

(a) Find $\lim_{x \rightarrow 0} \frac{\sin x}{e^x}$

(b) Find $\lim_{x \rightarrow 1} x^{\frac{1}{1-x}}$

2. (Fall 2003, Exam 3, #3) $\lim_{x \rightarrow \infty} \frac{\ln x}{e^{2x}}$

3. (Fall 2003, Exam 3, #4) $\lim_{x \rightarrow 0} \frac{1 - \cos 2x}{x^2}$

4. (Fall 2003, Exam 3, #5) $\lim_{x \rightarrow 0^+} (1 + \sin x)^{1/x}$

5. (Fall 2005, Exam 3, #10) $\lim_{x \rightarrow 0^+} (\sin 3x)^x$

6. (Fall 2007, Exam 3, #5) $\lim_{x \rightarrow 0} (1 - 2x)^{1/x}$

7. $\lim_{x \rightarrow \pi/2^-} \sec x - \tan x$