Then $\ln y = \ln[(1 + \sin 4x)^{\cot x}] = \cot x \ln(1 + \sin 4x)$

9. $\lim_{x \to 0} \dfrac{e^x - 1}{\sin x}$

10. $\lim_{x \to 0} \dfrac{x + \tan x}{\sin x}$

11. $\lim \dfrac{\sin x}{x^3}$

12. $\lim \dfrac{\tan x}{x}$

57. $\lim_{x \to 0} (1 - 2x)^{1/x}$

58. $\lim_{x \to \infty} \left(1 + \dfrac{a}{x}\right)^{bx}$

(b) For fixed t, use l'Hospital's Rule to calculate $\lim_{m\to\infty} v$. What can you conclude about the speed of a very heavy

77. If f' is continuous, use l'Hospital's Rule to show that

$$f(x+h) - f(x-h)$$