

Homework 6

Find the limits:

$$\lim_{x \rightarrow 0^-} \left(\frac{1}{x} - \frac{1}{\sin x} \right)$$

$$\lim_{x \rightarrow 0} \frac{\arctan x - x^2}{x}$$

$$\lim_{x \rightarrow 0^+} x^{\sin x}$$

$$\lim_{x \rightarrow 0} (1 + 3/x)^x$$

$$\lim_{x \rightarrow \infty} x^{1/x}$$

$$\lim_{x \rightarrow \infty} \frac{\ln x}{\sqrt{x}}$$