

(1) [5] Determine

$$\lim_{x \rightarrow \infty} \arctan(e^x)$$

(2) [5] Determine

$$\lim_{x \rightarrow -\infty} \tanh(x)$$

(2) [5] Determine

$$\lim_{x \rightarrow \infty} \frac{x}{\ln(1 + 2e^x)}$$