

Calculus II
Practice Problems 5

1. $\lim_{x \rightarrow 0} \frac{\sin x - x}{x(\cos x - 1)} =$

2. $\lim_{x \rightarrow 0} \frac{e^x - 1 - x}{x^2} =$

3. $\lim_{x \rightarrow 1} \frac{\ln x}{\cos((\pi/2)x)} =$

4. $\lim_{x \rightarrow 0^+} \left(\frac{\cos(\sqrt{x}) - 1}{x} \right) =$

5. $\lim_{x \rightarrow 5} \left(\frac{5 \cos(\pi x) + x}{x^2 - 25} \right) =$

6. $\lim_{x \rightarrow 1^+} (x - 1) \ln(\ln x) =$

7. $\lim_{x \rightarrow \infty} \frac{x}{\sqrt{1 + x^2}} =$

8. $\lim_{x \rightarrow 1} \left(\frac{1}{\ln x} - \frac{1}{x - 1} \right) =$