Calculus II
Practice Problems 5

1. $\lim_{x\to 0} \dfrac{\sin x - x}{x(\cos x - 1)} =$

2. $\lim_{x\to 0} \dfrac{e^x - 1 - x}{x^2} =$

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

4. $\lim_{x\to 0^+} (\dfrac{\cos(\sqrt{x}) - 1}{x}) =$

5. $\lim_{x\to 5} (\dfrac{5\cos(\pi x) + x}{x^2 - 25}) =$

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

7. $\lim_{x\to \infty} \dfrac{x}{\sqrt{1+x^2}} =$

8. $\lim_{x\to 1} (\dfrac{1}{\ln x} - \dfrac{1}{x-1}) =$