## ${\bf Infinity\,+\,Limits\,\,Quiz}$

1. Determine the following infinite limits

$$\lim_{x \to 2} \frac{1}{\sqrt{x(x-2)}}$$

2. Suppose that g satisfies the inequality

$$3 - \frac{1}{x^2} \le g(x) \le 3 + \frac{1}{x^2},$$

for all nonzero values of x. Evaluate (Find)  $\lim_{x\to\infty} g(x)$  and  $\lim_{x\to-\infty} g(x)$ .