Fake Quiz 3   **Calc 1**   **9/10/24**

Each problem is worth 0 points. In the event of a real quiz you would have received fair warning.

1. Let $f(x) = \frac{5}{6-x}$

   (a) What is $f(6)$? Does not exist

   (b) What is $\lim\limits_{x \to 6^+} f(x)$? $= -\infty$

   (c) What is $\lim\limits_{x \to 6^-} f(x)$? $= +\infty$

   (d) What is $\lim\limits_{x \to 6} f(x)$? Does not exist (since it's not the same from left and right)

2. Let $g(x) = \frac{x}{(x+2)^2}$

   (a) What is $g(-2)$? Does not exist

   (b) What is $\lim\limits_{x \to -2^+} g(x)$? $= -\infty$

   (c) What is $\lim\limits_{x \to -2^-} g(x)$? $= -\infty$

   (d) What is $\lim\limits_{x \to -2} g(x)$? $= -\infty$

3. Let $h(x) = \frac{x^3}{(x^2-4)}$

   (a) What is $h(2)$? Does not exist

   (b) What is $\lim\limits_{x \to +\infty} h(x)$? $= +\infty$

   (c) What is $\lim\limits_{x \to 2^+} h(x)$? $= +\infty$

   (d) What is $\lim\limits_{x \to 2^-} h(x)$? $= -\infty$

   (e) What is $\lim\limits_{x \to 2} h(x)$? Does not exist