1. Let $f_n(x) = \dfrac{x^2 + nx}{n}$

   Find $f(x) = \lim\limits_{n \to \infty} f_n(x)$

2. Let $g_n(x) = x^n$ on the interval $A = [0, 1]$

   Find $g(x) = \lim\limits_{n \to \infty} g_n(x)$

3. Let $h_n(x) = x^{1 + \frac{1}{2n-1}} = x \left(x^{\frac{1}{2n-1}} \right)$

   Find $h(x) = \lim\limits_{n \to \infty} h_n(x)$