NAME:

1. Prove that if $\{a_n\} \longrightarrow a$ and $\{b_n\} \longrightarrow b$ that $\{a_n - b_n\} \longrightarrow a - b$. Solution: 2. Prove that if $\lim_{x \to x_0} f(x) = L_1$ and $\lim_{x \to x_0} g(x) = L_2$ then $\lim_{x \to x_0} (fg)(x) = L_1 L_2$. You may assume all previous theorems from the notes.