## MATH310 Groupwork 2022-08-11

NAME:

1. Prove that if $\left\{a_{n}\right\} \longrightarrow a$ and $\left\{b_{n}\right\} \longrightarrow b$ that $\left\{a_{n}-b_{n}\right\} \longrightarrow a-b$.

Solution:
2. Prove that if $\lim _{x \rightarrow x_{0}} f(x)=L_{1}$ and $\lim _{x \rightarrow x_{0}} g(x)=L_{2}$ then $\lim _{x \rightarrow x_{0}}(f g)(x)=L_{1} L 2$.

You may assume all previous theorems from the notes.

