

Question 5:

- a. If $f(n)$ is in $\theta(n)$ then it is also in $O(h(n))$. Meaning $f(n) + g(n)$ in $O(h(n))$
- b. $F(n)$ is in $\theta(n)$ then it is also in $\omega(h(n))$. Meaning $f(n) + g(n)$ in $\omega(h(n))$ as sum cannot decrease the smallest value.

This completes the proof.

