1. Write a detailed structured proof that $5 n^{4}-3 n^{2}+1 \in \mathcal{O}\left(6 n^{5}-4 n^{3}+2 n\right)$.
2. Write a detailed structured proof that $6 n^{5}-4 n^{3}+2 n \notin \mathcal{O}\left(5 n^{4}-3 n^{2}+1\right)$.
