Question 1

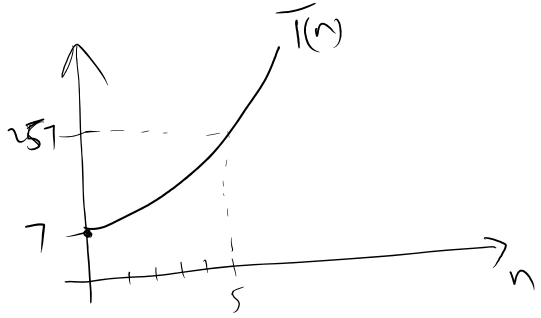
Let $T(n) = 2n^3 + 7$.

Show from first principles that

(a) $T(n) \in O(n^3)$ $\quad C = \_\_\_\_$ $\quad n_0 = \_\_\_\_$

(b) $T(n) \in \Omega(n^3)$ $\quad C = \_\_\_\_$ $\quad n_0 = \_\_\_\_$

(c) $T(n) \in \Theta(n^3)$ $\quad C = \_\_\_\_$ $\quad n_0 = \_\_\_\_$



Question 2

Show from first principles that $n^2 - 10n + 25$ is in $\Theta(n^2)$