

3) (10 pts) ANL (Summations and Recurrence Relations)

(a) (5 pts) Determine the following sum in terms of n : $\sum_{i=1}^{2n-1} (3i - 2)$.

(b) (5 pts) Let $T(n) = 3T\left(\frac{n}{2}\right) + n^2$. In using the iteration technique (3 steps) to solve the recurrence, we arrive at an equation of the form: $T(n) = AT\left(\frac{n}{8}\right) + Bn^2$. Find A and B.