Graded Assignment 2

PART 1

Find the time complexity of the below functions in Θ form. Write NA if the function does not apply to any case.

a) T (n) = 3T (n/2) + n

**Ans**: **T(n) = Θ(nlog23).**

b) T (n) = 64T (n/8) − n^2(log n)

**Ans: Not applicable because of negative value.**

c) T (n) = 2nT (n/2) + n^n

**Ans: Not applicable (a is not constant)**

d) T (n) = 3T (n/3) + n/2

**Ans: T(n) = Θ(nlogn)**

e) T (n) = 7T (n/3) + n^2

**Ans: T (n) = Θ(n2)**