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 = Θ(nlog23 )

b) T (n) = 64T (n/8) − n^2(log n) = NA as f(n) is negative.

c) T (n) = 2nT (n/2) + n^n = NA as ‘a’ is not constant.

d) T (n) = 3T (n/3) + n/2 = Θ(nlogn)

e) .T (n) = 7T (n/3) + n^2 = Θ(n2)