Question: - 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

b) T (n) = 64T (n/8) − n^2(log n)

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

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

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

Solution:

A) Θ (n^log3{base 2}).

B) NA

C) NA

D) Θ(nlogn)

E) Θ(n^2)