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) **Θ(n^log3 base 2)**

b)T (n) = 64T (n/8) − n^2(log n)

Ans)

**Θ(n^2 1**

**----- log ----logn)**

**2 n**

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

Ans) **NA**

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

Ans) **Θ(nlogn)**

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

Ans) **Θ(n^3)**