# Algorithm Assignment – Part 1 Answers

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

apply to any case.

1. T (n) = 3T (n/2) + n
2. T (n) = 64T (n/8) − n^2(log n)
3. T (n) = 2nT (n/2) + n^n
4. T (n) = 3T (n/3) + n/2
5. T (n) = 7T (n/3) + n^2

Answers:

1. T(n) = θ(n^)
2. NA
3. T(n) = θ(n^n)
4. T(n) = θ(n log n)
5. T(n) = θ(n^2)