

Time Complexity in Θ form

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

Solution: $\Theta(n^{\log_2 3})$

b) $T(n) = 64T(n/8) - n^{2(\log n)}$

Solution: $\Theta(n^{2(\log 1/n)})$

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

Solution: NA

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

Solution: $\Theta(n \log n)$

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

Solution: $\Theta(n^3)$