

DSA - Tutorial 4 Exercise

Total Marks(10)

28-01-2025

Exercise: Solve Using Master Theorem (2.5*4)

1. Solve using Master Theorem:

$$T(n) = 3T\left(\frac{n}{3}\right) + n$$

Find the time complexity.

2. Solve using Master Theorem:

$$T(n) = 4T\left(\frac{n}{2}\right) + n^2$$

Find the time complexity.

3. Solve using Master Theorem:

$$T(n) = 2T\left(\frac{n}{4}\right) + n$$

Find the time complexity.

4. Solve using Master Theorem:

$$T(n) = 5T\left(\frac{n}{5}\right) + n \log n$$

Find the time complexity.