

Practice with Recurrence Relations

Solve the following recurrence relations using the iteration technique:

1) $T(n) = T(n - 1) + 2, \quad T(1) = 1$

2) $T(n) = 2T(n/2) + n, \quad T(1) = 1$

3) $T(n) = 2T\left(\frac{n}{2}\right) + 1, \quad T(1) = 1$

4) $T(n) = T(n - 1) + n, \quad T(1) = 1$
