1. T(n) = 3T(n/2)+n.

T(n) = Θ(nlg3) (case 1).

2. T(n) = 64T(n/8)-n^2logn.

T(n) is does not apply (f(n) is not positive).

3. T(n) = 2nT(n/2)+n^n.

Does not apply (non-polynomial diffential).

4. T(n) = 3T(n/3)+n/2.

T(n) = Θ(n log n) (case 2).

5. T(n) = 7T(n/3)+n^2.

T(n) = Θ(n^2) (case 3).