Practice Problems for Master Theorem

1. $T(n) = 3T(n/2) + n^2$
2. $T(n) = 4T(n/2) + n^2$
3. $T(n) = T(n/2) + 2^n$
4. $T(n) = 2nT(n/2) + n^n$
5. $T(n) = 16T(n/4) + n$
6. $T(n) = 2T(n/2) + n \log n$
7. $T(n) = 2T(n/2) + n/\log n$
8. $T(n) = 2T(n/4) + n^{0.51}$
9. $T(n) = 0.5T(n/2) + 1/n$
10. $T(n) = 16T(n/4) + n!$
11. $T(n) = \sqrt{2}T(n/2) + \log n$
12. $T(n) = 3T(n/2) + n$
13. $T(n) = 3T(n/3) + \sqrt{n}$
14. $T(n) = 4T(n/2) + cn$
15. $T(n) = 3T(n/4) + n \log n$
16. $T(n) = 3T(n/3) + n/2$
17. $T(n) = 6T(n/3) + n^2 \log n$
18. $T(n) = 4T(n/2) + n/\log n$
19. $T(n) = 64T(n/8) - n^2 \log n$
20. $T(n) = 7T(n/3) + n^2$
21. $T(n) = 4T(n/2) + \log n$
22. $T(n) = T(n/2) + n(2 - \cos n)$