## Your Exercise

What is the big O and Master Theorem Case for the following time function?

i. 
$$T(n) = 2T(n/2) + 1$$

ii. 
$$T(n) = 4T(n/2) + 1$$

iii. 
$$T(n) = 2T(n/2) + n$$

iv. 
$$T(n) = 2T(n/2) + n \log n$$

v. 
$$T(n) = 4T(n/2) + n^2$$

vi. 
$$T(n) = 4T(n/2) + n^2 \log^2 n$$

vii. 
$$T(n) = 2T(n/2) + n / log^2 n$$

viii. 
$$T(n) = 4T(n/2) + n$$

ix. 
$$T(n) = 8T(n/2) + n^2$$

x. 
$$T(n) = 4T(n/2) + n^3 log^2 n$$

xi. 
$$T(n) = 2T(n/2) + n^2 / logn$$

xii. 
$$T(n) = T(n/2) + 1$$

xiii. 
$$T(n) = 16T(n/2) + n^2$$

xiv. 
$$T(n) = T(n/2) + n$$

xv. 
$$T(n) = 2T(n/2) + n^2$$

xvi. 
$$T(n) = 2T(n/2) + n^2 \log n$$

xvii. 
$$T(n) = 2T(n/2) + n / logn$$