

Time complexity & Class

$$\text{for}(i=0; i < n; i++) \text{ --- } O(n)$$

$$\text{for}(i=0; i < n; i=i+2) \text{ --- } \frac{n}{2} \quad O(n)$$

$$\text{for}(i=n; i > 1; i--) \text{ --- } O(n)$$

$$\text{for}(i=1; i < n; i=i*2) \text{ --- } O(\log_2 n)$$

$$\text{for}(i=1; i < n; i=i*3) \text{ --- } O(\log_3 n)$$

$$\text{for}(i=n; i > 1; i=i/2) \text{ --- } O(\log_2 n)$$

$$1 < \log n < \sqrt{n} < n < n \log n < n^2 < n^3 < \dots < 2^n < 3^n \dots < n^n$$