

8) 1) for ($i=1; i \leq n; i++$) $\rightarrow n$
for ($j=1; j \leq n; j++$) $\rightarrow n$
printf ("Hi");

$$\therefore n * n \Rightarrow \underline{O(n^2)}$$

10) 2) for ($i=1; i \leq n; i *= 3$) $\rightarrow \log n$
for ($j=1; j \leq n; j++$) $\rightarrow n$
printf ("Hello");

$$\Rightarrow n * \log n$$

$$\Rightarrow \underline{O(n \log n)}$$