```
1  # Practice question 4
2  i = 1
3  while i <= n:
4      print(i)
5      i *= 2
```

Loop will stop executing when .

$$i > n$$

lets assume that $n = 20$

1 2 4 8 16 ....

2^0 2^1 2^2 2^3 2^4 .... 2^k /

$$i > n$$

$$2^k > n$$

$$\log 2^k > \log n$$

$$k \log_2 2 > \log n$$

$$k > \log n$$

for $i \longrightarrow n$

$O(n)$