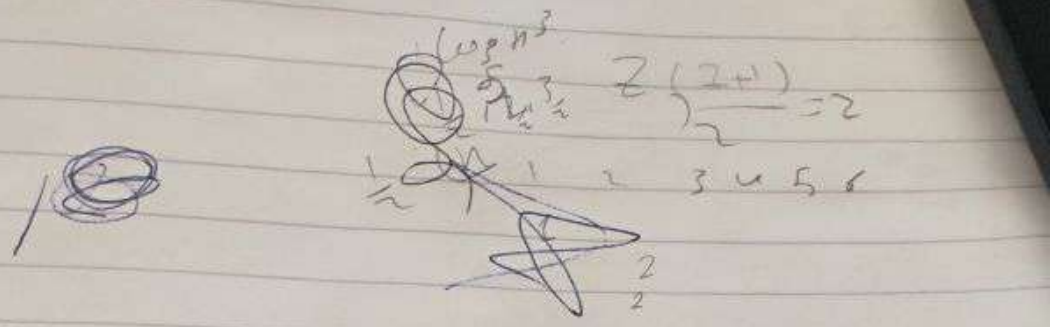

HW 3 - calculate the time complexity.

2- int fun (int n) {
int count = 0
for (int i = n; i > 0; i /= 2) → log n
for (int j = 0; j < i; j++) n
count += 1;
return count; }
O(n log n)

int a = 0, b = 0;
for (i = 0; i < N; i++)
a = a + rand()
for (j = 0; j < M; j++
b = b + rand();
O(N+M)

3- for (int i = n; i > 0; i = i / 2)
for (int j = 2; j < n; j = j * 2)
for (int k = 0; k < n; k = k + 2)
{
}

O(log2(log2 n))

4- for (int i = 0; i < n; i++)
i *= k;
} O(log_k n)

5- int i, j, k = 0
for (i = n/2; i <= n; i++)
for (j = 2; j <= n; j =
{
k = k + n/2;
}
log2(log n - 2))