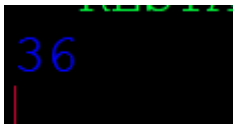
101. Assembly line scheduling

Code:

```
def assembly_line_scheduling(a, t, e, x):
    n = len(a[0])


    T1 = [0] * n
    T2 = [0] * n

    T1[0] = e[0] + a[0][0]
    T2[0] = e[1] + a[1][0]

    for j in range(1, n):
        T1[j] = min(T1[j-1] + a[0][j], T2[j-1] + t[1][j-1] + a[0][j])
        T2[j] = min(T2[j-1] + a[1][j], T1[j-1] + t[0][j-1] + a[1][j])

    final_time = min(T1[n-1] + x[0], T2[n-1] + x[1])

    return final_time

a = [[4, 5, 3, 2], [2, 10, 1, 4]]
t = [[0, 7, 4, 5], [0, 9, 2, 8]]
e = [10, 12]
x = [18, 7]

print(assembly_line_scheduling(a, t, e, x))
```

Output:



Time Complexity:

- T(n)= O(n)