**OUTPUT**

**Greedy algorithm:**

*def* greedy\_method(*w*, *Weight*, *Price*):

*Weight*, *Price* = zip(\*sorted(zip(*Weight*, *Price*), *reverse*=True, *key*=*lambda* *pair*: *pair*[1]))

    p = 0

    wl = *w*

    num\_pieces = 0

    while wl > min(*Weight*):

        for i in range(len(*Weight*)):

            if *Weight*[i] <= wl:

                break

        wl -= *Weight*[i]

        p += *Price*[i]

        num\_pieces += 1

    return num\_pieces

**output for 1st test case**

**Text

Description automatically generated**

**Time: 0.136sec**

**Output for 2nd test case**

**Text

Description automatically generated**

**Time: 0.152 sec**

**output for 3rd test case**

**Text

Description automatically generated**

**Time:0.165sec**

**Output for 4th test case**

**Text

Description automatically generated**

**Time: 0.212 sec**

**output for 5th test case**

**Text

Description automatically generated**

**Time :0.102 sec**

**Brute Force algorithm:**

**Output for 1st test case**

**Text

Description automatically generated**

**Time: 0.180 sec**

**Output for 2nd test case**

**Text

Description automatically generated**

**Time: 0.215 sec**

**Output for 3rd test case**

**Text

Description automatically generated**

**Time: 0.236 sec**

**Output for 4th test case**

**Text

Description automatically generated**

**Time: 0.265 sec**

**Output for 5th test case**

**Text

Description automatically generated**

**Output: 0.152 sec**

**Dynamic Programming**

**Output for 1st test case**

**Text

Description automatically generated**

**Time:- 0.180 sec**

**Output for 2nd test case**

**Text

Description automatically generated**

**Time: 0.202 sec**

**Output for 3rd test case**

**Text

Description automatically generated**

**Time: 0.308 sec**

**Output for 4th test cases**

**Text

Description automatically generated**

**Time: 0.310 sec**

**Output for 5th test cases**

**Text

Description automatically generated**

**Time: 0.520 sec**