

Consider the following items. Use dynamic programming method to select items that maximize the total value, ensuring the total weight does not exceed 8.

Fill the table, find the maximum value, and the items that are selected.

Item1:

Value=10, Weight=2

Item2:

Value=35, Weight=5

Item3:

Value=30, Weight=6

Item4:

Value=20, Weight=3

Item5:

Value=20, Weight=3

Answer:

	0	1	2	3	4	5	6	7	8
0	0	0	0	0	0	0	0	0	0
1	0	0	10	10	10	10	10	10	10
2	0	0	10	10	10	35	35	45	45
3	0	0	10	10	10	35	35	45	45
4	0	0	10	20	20	35	35	45	55
5	0	0	10	20	20	35	40	45	55

Items 4, 2 should be picked.