Suppose in the month of September, Alice received the following list of advertisements:

Advertisements:

Ad 1 - Value: $12, Size: 4

Ad 2 - Value: $8, Size: 2

Ad 3 - Value: $9, Size: 3

Ad 4 - Value: $7, Size: 2

Ad 5 - Value: $5, Size: 1

**The maximum available space is 5**.

Fill the following table according to the formula you developed in question (a). Then write the

set of advertisements Alice should select.

| Value | Size | Item | Maximum Available Space | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 |
|  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | 4 | 1 | 0 | 0 | 0 | 0 | 12 | 12 |
| 8 | 2 | 2 | 0 | 0 | 8 | 8 | 12 | 12 |
| 9 | 3 | 3 | 0 | 0 | 8 | 9 | 12 | 17 |
| 7 | 2 | 4 | 0 | 0 | 8 | 9 | 15 | 17 |
| 5 | 1 | 5 | 0 | 5 | 8 | 13 | 15 | 20 |

mat[i, w] = max (mat[i-1, w], mat[i-1, W - W[i]] + p[i])

Max value = 20