

```
#include <stdio.h>
#include <stdlib.h>

#define M 18
#define N 5

int size[N]={ 3, 4, 7, 8, 9},
    val[N] ={ 4, 5,10,11,13},
    cost[M],best[M];

void main()
{
    int element, actsize;

    clrscr();
    for (element=0; element<N; element++)
    {
        for (actsize=0; actsize<M; actsize++)
        {
            if (actsize>=size[element] &&
                cost[actsize]<cost[actsize-size[element]]+val[element])
            {
                cost[actsize]=cost[actsize-size[element]]+val[element];
                best[actsize]=element;
            }
        }
        printf("\n");
        for (actsize=0; actsize<M; actsize++)
            printf("%2d|", actsize);
        printf("\n");
        for (actsize=0; actsize<M; actsize++)
            printf("%2d|", cost[actsize]);
        printf("\n");
        for (actsize=0; actsize<M; actsize++)
            printf(" %c|", best[actsize]+'A');
        printf("\n");
    }
}SUB
```