LAB TASK 4. *Backtracking*. Livestock of Cows.

Taking into account the statement of the previous Lab task: a cattle farm has N cows for sale, of which we know the number of kilos of feed each one needs, the space each one occupies, as well as the litres of milk each one produces. The farmer who wants to buy the livestock of cows has a farm of M square metres.

The following sections must be solved by applying the backtracking technique:

a) You must provide a list of cows that the farmer could buy to achieve a minimum production of L litres of milk and fit on his farm. The value of L will be input from the keyboard.
b) Provide the number of batches of cows that meet the above restrictions: that fit on the farm and that produce at least L litres of milk.
c) Provide the best possible purchase of cows, which fit on the farm, taking into account that you want to obtain the highest possible milk production.

In addition, calculate the theoretical complexity of the developed algorithms.

Perform several tests with different data sets and determine at what number of cows the problem becomes " untreatable ".

Cows information

Code	Space (dm^2)	Food (kg)	Milk(Liters)
1	550	64,00	30,80
2	620	56,00	45,00
3	550	79,00	38,00
4	610	80,00	38,70
5	590	58,00	36,80
6	490	69,00	33,20
7	630	82,00	41,20
8	460	68,00	28,90
9	640	66,00	46,50
10	500	46,00	30,70
11	490	61,00	33,10
12	590	72,00	38,60
13	550	62,00	38,80
14	610	73,00	34,40
15	490	41,00	31,70
16	500	57,00	32,50
17	610	57,00	40,00
18	590	51,00	44,00
19	510	55,00	31,40
20	640	73,00	43,90
21	590	73,00	43,70
22	480	62,00	27,60
23	530	76,00	37,10
24	490	59,00	33,00
25	460	59,00	30,50
26	630	80,00	36,10
27	500	61,00	34,00
28	470	50,00	29,50
29	470	71,00	32,30
30	530	49,00	33,90