Knapsack Calculator

Given a set of items, each with a weight and a value.

Knapsack algorithm determine the number of each item to include in a collection so that the total weight is less than or equal to a given limit and the total value is as large as possible.

Whereas in Knapsack 0-1 algorithm items cannot be divided which means either should take the item as a whole or should leave it.

1000		
100		
\ 		Generate Table
Items	Profit	Weight
Item 0	47	50
Item 1	36	16
Item 2	68	36
Item 3	64	36
Item 4	61	50
Item 5	50	41
Item 6	46	45
Item 7	44	28
Item 8	87	47
Item 9	37	12
Item 10	36	19
Item 11	44	46
Item 12	60	29
Item 13	62	33
Item 14	97	19
Item 15	36	30
Item 16	58	39
Item 17	86	22
Item 18	61	41
Item 19	90	12
Item 20	68	28

71.2025, 22.12	·	ack Calculator
Item 21	33	44
Item 22	53	23
Item 23	87	44
Item 24	76	18
Item 25	68	31
Item 26	52	44
Item 27	60	50
Item 28	76	24
Item 29	46	21
Item 30	44	35
Item 31	81	22
Item 32	45	46
Item 33	78	45
Item 34	77	12
Item 35	66	50
Item 36	38	32
Item 37	91	43
Item 38		
Item 39	48	13
Item 40	81	19
	43	35
Item 41	70	31
Item 42	79	27
Item 43	57	15
Item 44	41	27
Item 45	38	48
Item 46	62	17
Item 47	70	17
Item 48	43	43
Item 49	62	16
Item 50	45	46

Item 51		
item 51	81	20
Item 52	68	20
Item 53	91	42
Item 54	79	47
Item 55	53	22
Item 56	80	28
Item 57	78	45
Item 58	59	50
Item 59	67	39
Item 60	42	25
Item 61	54	46
Item 62	64	24
Item 63	53	31
Item 64	92	37
Item 65	81	35
Item 66	67	40
Item 67	61	45
Item 68	74	40
Item 69	40	19
Item 70	62	27
Item 71	37	26
Item 72	73	16
Item 73	84	33
Item 74	67	13
Item 75	41	49
Item 76	60	47
Item 77	73	26
Item 78	60	49
Item 79	96	26
Item 80	83	12

71.2020, 22.12		Tapodok Odiodiator
Item 81	91	16
Item 82	51	15
Item 83	66	26
Item 84	50	16
Item 85	64	14
Item 86	66	33
Item 87	87	16
Item 88	84	44
Item 89	79	27
Item 90	61	29
Item 91	50	43
Item 92	98	25
Item 93	96	46
Item 94	44	20
Item 95	39	48
Item 96	47	48
Item 97	52	42
Item 98	53	27
Item 99	87	42

Calculate

Knapsack

Resultant Profit

3259.37

Density

7.50,6.92,6.42,5.69,5.44,5.15,5.11,4.57,4.56,4.26,4.22,4.

Profit

90,83,77,91,87,67,97,64,73,81,76,70,81,98,86,62,57,48,

Weight

12,12,12,16,16,13,19,14,16,19,18,17,20,25,22,16,15,13,

Resultant Solution

Knapsack 0-1

Resultant Table

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36	36	36	36	36	36	36	44	44	44	44
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36	36	36	36	36	36	36	44	44	44	44
0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	73	73	73	73
0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	73	73	73	73
0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	73	73	73	73
0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	73	73	73	73
0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	73	73	73	73
0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	37	97	97	97	97	97	97	97	97	97	97	97	97	134
0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	37	97	97	97	97	97	97	97	97	97	97	97	97	134
0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	37	97	97	97	97	97	97	97	97	97	97	97	97	134
0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	37	97	97	97	97	97	97	97	97	97	97	97	97	134
0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	37	97	97	97	97	97	97	97	97	97	97	97	97	134
0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	127	187
0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	127	187
0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	127	187
0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	127	187
0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	127	187
0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	166	187
0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	166	187
0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	166	187
0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	166	187
0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	166	187

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	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	166	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	166	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	166	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	166	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	127	127	127	127	127	127	166	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
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	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	Ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	Ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	ŀ
ļ	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	Ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	Ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	Ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	Ļ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	Ļ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	Ľ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	Ľ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	Ľ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	Ļ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	_

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	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	167	167	167	167	167	167	167	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	97	97	97	97	97	173	173	173	173	173	173	173	187	Ŀ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ŀ
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ŀ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ŀ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ŀ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ľ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ľ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ľ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ľ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ľ.
ļ	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ļ.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	_
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	_
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	_
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	_
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ė.
-	0			_	0	_	0	-	0		0	0		90	90	90	91	91	91	97	97	97	97	97	173	173			181	181	181	187	Ė.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97		173	173	173	173	181	181	181	187	Ė.
	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	91	91	91	97	97	97	97	97	173	173	173	173	181	181	181	187	Ĺ.

Resultant Profit

3259

Profit

47,36,68,64,61,50,46,44,87,37,36,44,60,62,97,36,58,86,

Weight

50,16,36,36,50,41,45,28,47,12,19,46,29,33,19,30,39,22,

Resultant Solution