

int[] profits = {31,26,72,17};
int[] weights = {3,1,5,2};
capacity = 7
ans : 98

	P1	P2	P3	P4
	31	26	72	17
	W1	W2	W3	W4
	3	1	5	2

Top-Down

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	N
P2	0	N	N	N	N	N	N	N
P3	0	N	N	N	N	N	N	N
P4	0	N	N	N	N	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((P1+P2C4),P2C7)
P2	0	N	N	N	N	N	N	N
P3	0	N	N	N	N	N	N	N
P4	0	N	N	N	N	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+P2C4),P2C7)
P2	0	N	N	N	N	N	N	N
P3	0	N	N	N	N	N	N	N
P4	0	N	N	N	N	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+P2C4),P2C7)
P2	0	N	N	N	Max((P2+P3C3),P3C4)	N	N	N
P3	0	N	N	N	N	N	N	N
P4	0	N	N	N	N	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+P2C4),P2C7)
P2	0	N	N	N	Max((26+P3C3),P3C4)	N	N	N
P3	0	N	N	N	N	N	N	N
P4	0	N	N	N	N	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((P1+P2C4),P2C7)
P2	0	N	N	N	Max((P2+P3C3),P3C4)	N	N	N
P3	0	N	N	Max((0+0),P4C3)	N	N	N	N
P4	0	N	N	N	N	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((P1+P2C4),P2C7)
P2	0	N	N	N	Max((P2+P3C3),P3C4)	N	N	N
P3	0	N	N	Max((0+0),P4C3)	N	N	N	N
P4	0	N	N	Max((0+0),0)	N	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((P1+P2C4),P2C7)
P2	0	N	N	N	Max((P2+P3C3),P3C4)	N	N	N
P3	0	N	N	Max((0+0),P4C3)	N	N	N	N
P4	0	N	N	0	N	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((P1+P2C4),P2C7)
P2	0	N	N	N	Max((P2+P3C3),P3C4)	N	N	N
P3	0	N	N	Max((0+0),0) = 0	N	N	N	N
P4	0	N	N	0	N	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((P1+P2C4),P2C7)
P2	0	N	N	N	Max((P2+P3C3),P3C4)	N	N	N
P3	0	N	N	0	Max((0+0),P4C4)	N	N	N
P4	0	N	N	0	N	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((P1+P2C4),P2C7)
P2	0	N	N	N	Max((P2+P3C3),P3C4)	N	N	N
P3	0	N	N	0	Max((0+0),P4C4)	N	N	N
P4	0	N	N	0	Max((P4+0),0)	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((P1+P2C4),P2C7)
P2	0	N	N	N	Max((P2+P3C3),P3C4)	N	N	N
P3	0	N	N	0	Max((0+0),P4C4)	N	N	N
P4	0	N	N	0	17	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((P1+P2C4),P2C7)
P2	0	N	N	N	Max((P2+P3C3),P3C4)	N	N	N
P3	0	N	N	0	Max(0+0, 17) = 17	N	N	N
P4	0	N	N	0	17	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((P1+P2C4),P2C7)
P2	0	N	N	N	Max((26+0),17) = 26	N	N	N
P3	0	N	N	0	17	N	N	N
P4	0	N	N	0	17	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((P2+P3C6),P3C7)
P3	0	N	N	0	17	N	N	N
P4	0	N	N	0	17	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
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P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((P2+P3C6),P3C7)
P3	0	N	N	0	17	N	Max((P3+P4C1),P4C6)	N
P4	0	N	N	0	17	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((P2+P3C6),P3C7)
P3	0	N	N	0	17	N	Max((P3+P4C1),P4C6)	N
P4	0	Max((0+0),0)	N	0	17	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((P2+P3C6),P3C7)
P3	0	N	N	0	17	N	Max((P3+P4C1),P4C6)	N
P4	0	0	N	0	17	N	N	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((P2+P3C6),P3C7)
P3	0	N	N	0	17	N	Max((P3+P4C1),P4C6)	N
P4	0	0	N	0	17	N	Max((P4+0),0)	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((P2+P3C6),P3C7)
P3	0	N	N	0	17	N	Max((P3+P4C1),P4C6)	N
P4	0	0	N	0	17	N	17	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((P2+P3C6),P3C7)
P3	0	N	N	0	17	N	Max((72+0),17)	N
P4	0	0	N	0	17	N	17	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((P2+P3C6),P3C7)
P3	0	N	N	0	17	N	72	N
P4	0	0	N	0	17	N	17	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((26+72),P3C7)
P3	0	N	N	0	17	N	72	N
P4	0	0	N	0	17	N	17	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((26+72),P3C7)
P3	0	N	N	0	17	N	72	Max((P3+P4C2),P4C7)

P4	0	0	N	0	17	N	17	N
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	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((26+72),P3C7)
P3	0	N	N	0	17	N	72	Max((P3+P4C2),P4C7)
P4	0	0	Max((P4+0),0)	0	17	N	17	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((26+72),P3C7)
P3	0	N	N	0	17	N	72	Max((P3+P4C2),P4C7)
P4	0	0	17	0	17	N	17	N

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((26+72),P3C7)
P3	0	N	N	0	17	N	72	Max((P3+P4C2),P4C7)
P4	0	0	17	0	17	N	17	Max((P4+0),0)

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((26+72),P3C7)
P3	0	N	N	0	17	N	72	Max((P3+P4C2),P4C7)
P4	0	0	17	0	17	N	17	17

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((26+72),P3C7)
P3	0	N	N	0	17	N	72	Max((72+17),17)
P4	0	0	17	0	17	N	17	17

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),P2C7)
P2	0	N	N	N	26	N	N	Max((26+72),89)
P3	0	N	N	0	17	N	72	89
P4	0	0	17	0	17	N	17	17

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	Max((31+26),98)
P2	0	N	N	N	26	N	N	98
P3	0	N	N	0	17	N	72	89
P4	0	0	17	0	17	N	17	17

	C0	C1	C2	C3	C4	C5	C6	C7
P1	0	N	N	N	N	N	N	98

P2	0	N	N	N	26	N	N	98
P3	0	N	N	0	17	N	72	89
P4	0	0	17	0	17	N	17	17