Greedy Approach — Fraction is allowed

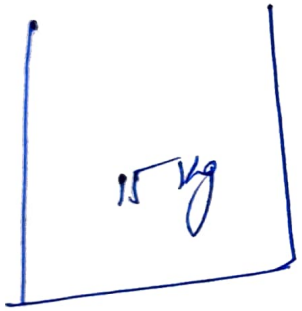
$n = 7$ objects

$m = 15$

objects	0	1	2	3	4	5	6	7
profit p	10	5	15	7	6	18	3	
weight w	2	3	5	7	1	4	1	
P/W	5	1.3	3	1	6	4.5	3	
	1	1 (2/3)	1	0	1	1	1	

Profit is maximized

Fractional of weight can be allowed



$15 - 1 = 14$ kg Selecting max 6 P/W

$14 - 2 = 12$ kg

$12 - 4 = 8$ kg

$8 - 5 = 3$ kg

$3 - 1 = 2$ kg

$2 - 2$ (2 kg out 3 kg) $= 0$ kg

(2/3) fraction

$1 \times 2 + 1 \times 2/3 + 1 \times 5 + 0 \times 7 + 1 \times 1 + 1 \times 4 + 1 \times 1$

$2 + 2/3 + 5 + 0 + 1 + 4 + 1$

$= 15$ kg