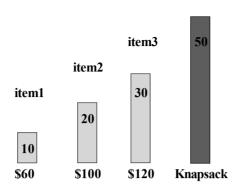# Review 9

1. Solve the following activity selection problem.

i	1	2	3	4	5	6	7	8	9	10	11
s_i	1	3	0	5	3	5	6	8	8	2	12
f_i	4	5	6	7	8	9	10	11	12	13	14

2. Solve the 0-1 knapsack and fractional knapsack problems for the following example.

	item1	item2	item3	Knapsack
weight	10	20	30	50
value	$60	$100	$120	

(1) 0-1 knapsack

(2) fractional knapsack

3. Construct an optimal prefix code (Huffman code) for the following table.

	a	b	c	d	e	f
Frequency (in thousands)	45	13	12	16	9	5