

Branch and Bound Activity

New Attempt

Due No Due Date **Points** 0 **Submitting** a file upload **File Types** pdf, zip, and z
Available after Nov 7, 2022 at 12a.m.

A) The following table shows the weights and values of different items. Assume that we have a knapsack that can hold the maximum weight $W = 12$, what is the maximum value you may have in the knapsack? You can NOT break the items. Use the branch and bound approach with the tightest bound introduced in the lecture.

item	value	weight
1	\$ 8	2
2	\$ 24	4
3	\$ 10	5
4	\$ 18	6

B) Assume that the following table shows the cost of assigning different people to projects. Find the best assignment using a branch and bound. Draw the tree.

Developer	UI	Logic	Security	Data
Alexis (A)	1	6	2	9
Brody (B)	4	5	3	6
Carrie (C)	6	7	5	9
Devon (D)	6	9	5	3