TAsk 3
  11 variables
  A
  $B_1, B_2, \ldots, B_{10}$
  A can take 5 values
  Each $B_{11} \ldots B_{10}$ can take 7 variables
  Each B_i is conditionally independent of all other 9 B_j

Part a:
  In joint distribution table, we need to store
  For each B variable 7 values
    Suppose For 2 B values

$B_1 \backslash B_2$	1	2	3	4	5	6	7
1							
2							
3							
4							
5							
6							
7							

so total 49 values

So For Variable's $B_1, \ldots B_{10}$ & A

B_1	B_2	B_3	B_4	B_5	B_6	B_7	B_8	B_9	B_{10}	A
7 ×	7 ×	7 ×	7 ×	7	×7	×7	×7	×7	×7	× 5

$= \underline{7^{10} \times 5}$

Part B: 7

Given that each B_j is conditionally independent of all other 9 B_j variables Given A.

So we can store them separately.

Each B_j variable with A

$7 \times 5 + 7 \times 5 + 7 \times 5 + 7 \times 5 + 7 \times 5 + 7 \times 5 + 7 \times 5 + 7 \times 5 + 7 \times 5 + 7 \times 5$

$= \underline{\underline{350}}$