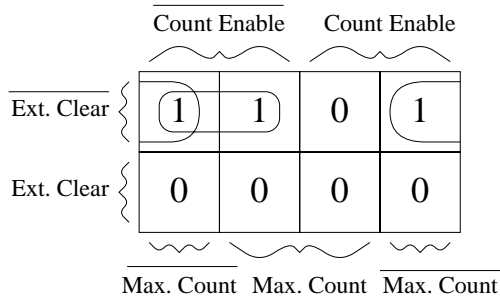


Cascading Counters

Part A

<i>External Clear</i>	<i>Count Enable</i>	<i>Max. Count</i>	\overline{Clear}
0	0	X	1
0	1	0	1
0	1	1	0
1	X	X	0

Part B



prime implicant

Count Enable Ext. Count

Max. Count Ext. Count

essential?

yes no

yes no

yes no

$$\overline{Clear} = \overline{Ext. Count}(\overline{Count Enable} + \overline{Max. Count})$$

Part C

