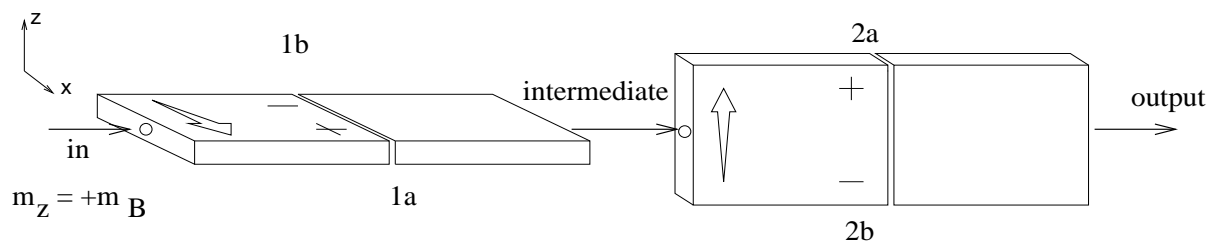# Conceptest

Atoms with $m_z = m_B$ are passed through a horizontal analyzer loop, then a vertical analyer loop:

If all branches are open, 100% of the incoming atoms exit from the output. What percent of the incoming atoms leave from the output if the following branches are closed? (The atoms are not observed as they pass through the analyzer loops.) You will make predictions for each of the following experiments.

Branches Closed	Input State	Branch Taken Through Loop 1	Intermediate State	Branch Taken Through Loop 2	Output State	Prob. of In to Out
none	$m_z = +m_B$	both	$m_z = +m_B$	a	$m_z = +m_B$	100%
2a	$m_z = +m_B$					
2b	$m_z = +m_B$					
1a	$m_z = +m_B$					
1b	$m_z = +m_B$					
1b and 2a	$m_z = +m_B$					
1a and 2b	$m_z = +m_B$					