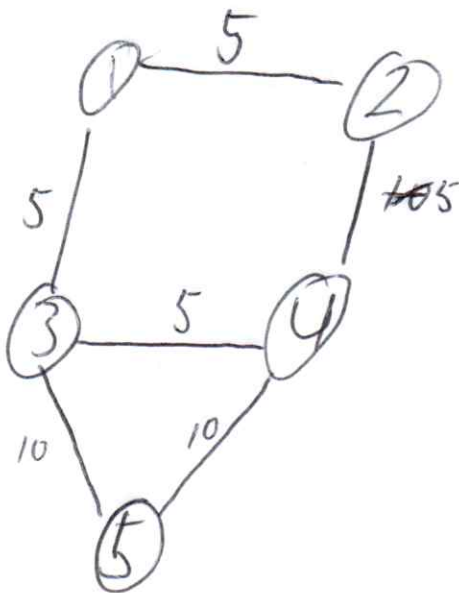
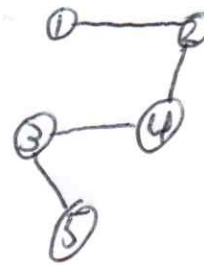
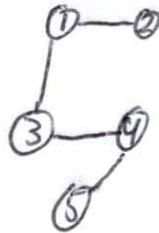


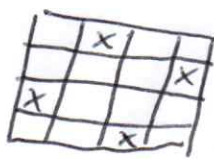
①



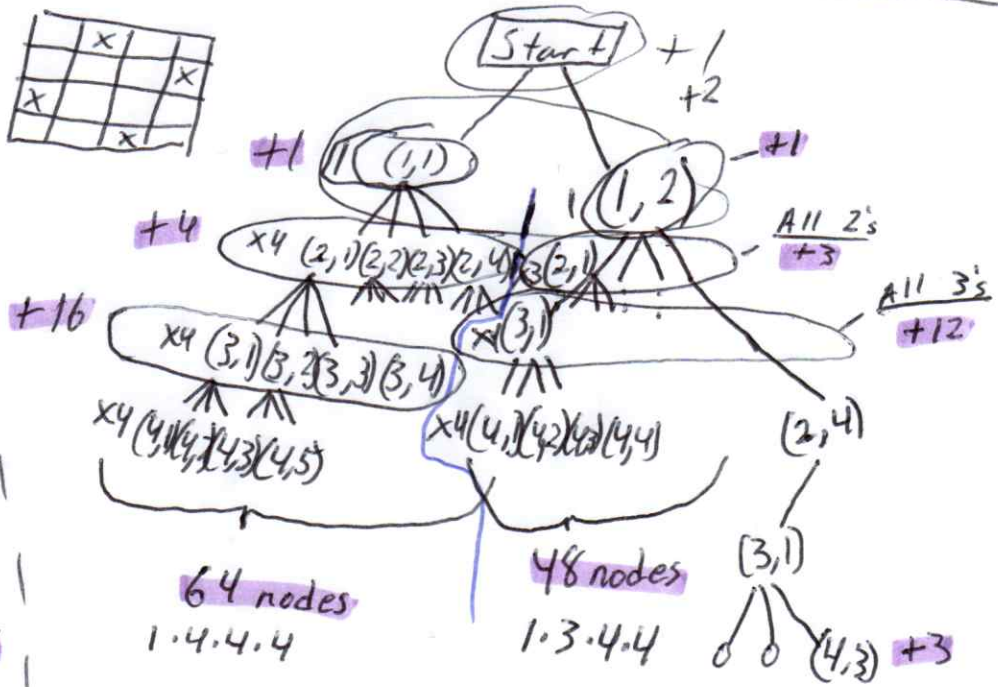
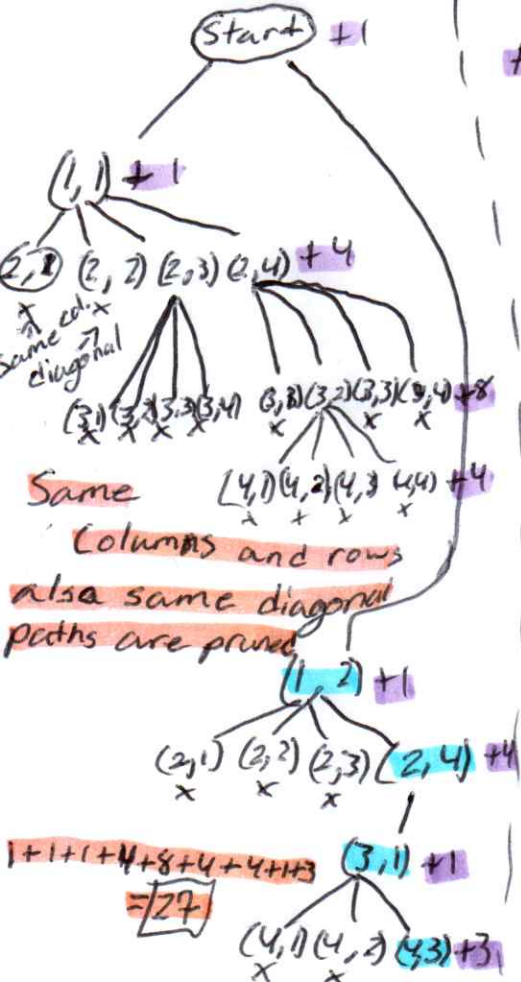
$$\begin{array}{ll}
 1-2:5 & 1-2:5 \\
 1-3:5 & 2-4:5 \\
 3-4:5 & 4-3:5 \\
 4-5:10 & 3-5:10 \\
 5+5+5+10=25 & 5+5+5+10=25
 \end{array}$$



③ first solution



with backtracking!



bottom nodes $64 + 48 + 3 = 115$

inner nodes $(16 + 4 + 1) + (12 + 3 + 1) = 37$

root nodes $2 + 1 = 3$

All nodes $115 + 37 + 3 = 155$