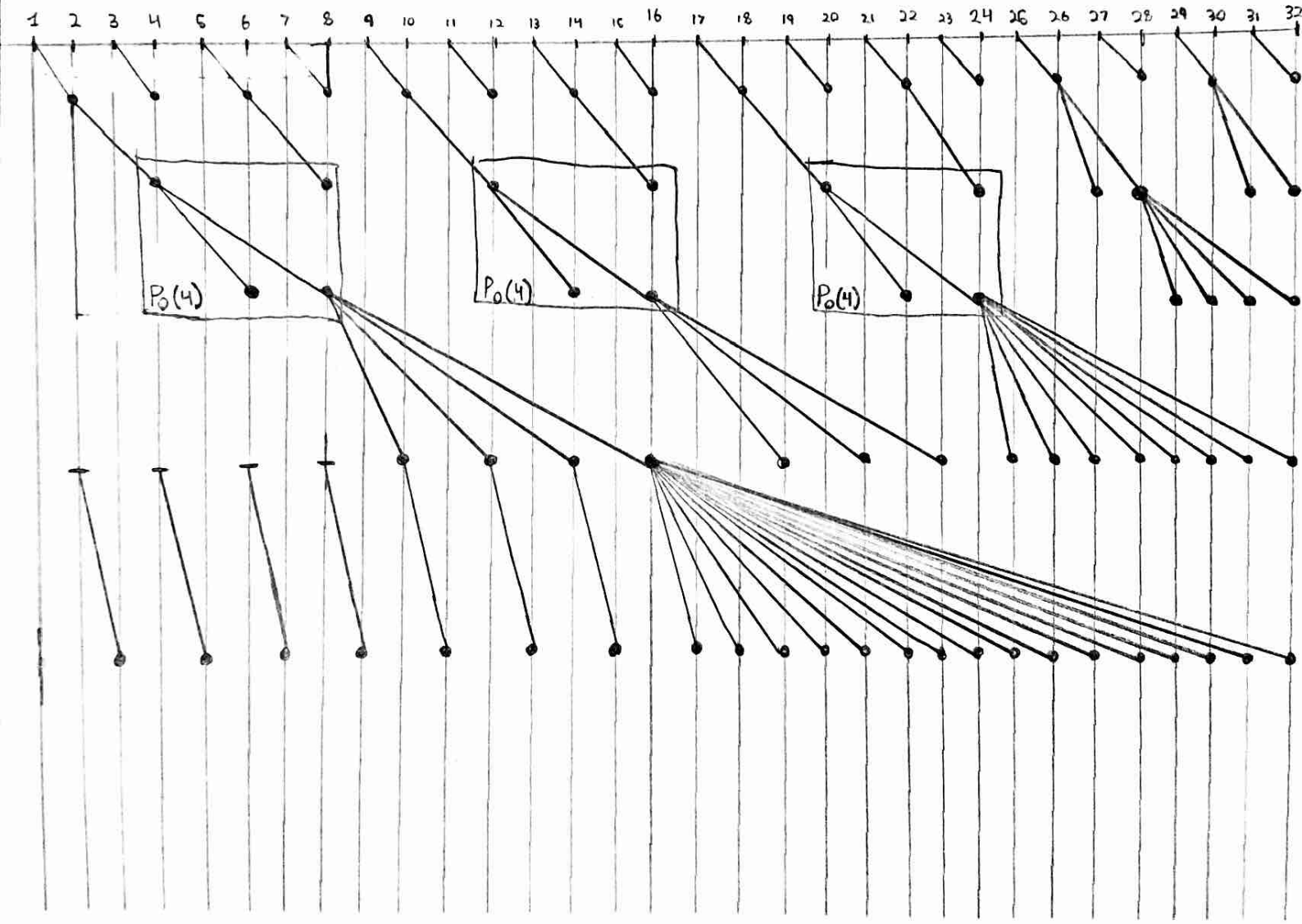
Question 4:
Draw P0(32). While coming up with this solution, pay attention to the relation between the depth and the recursive application of the algorithm. Can you show that the depth is Log_2N?

We need $P_0(16)$ and $P_1(16)$



$Log_2N = Log_232 = 5$

P_1 = depth $\lceil log_2N \rceil + 1$ but only applied to N/2 so only $\lceil log_2N \rceil$

*Depth grows by 1 for each doubling of N