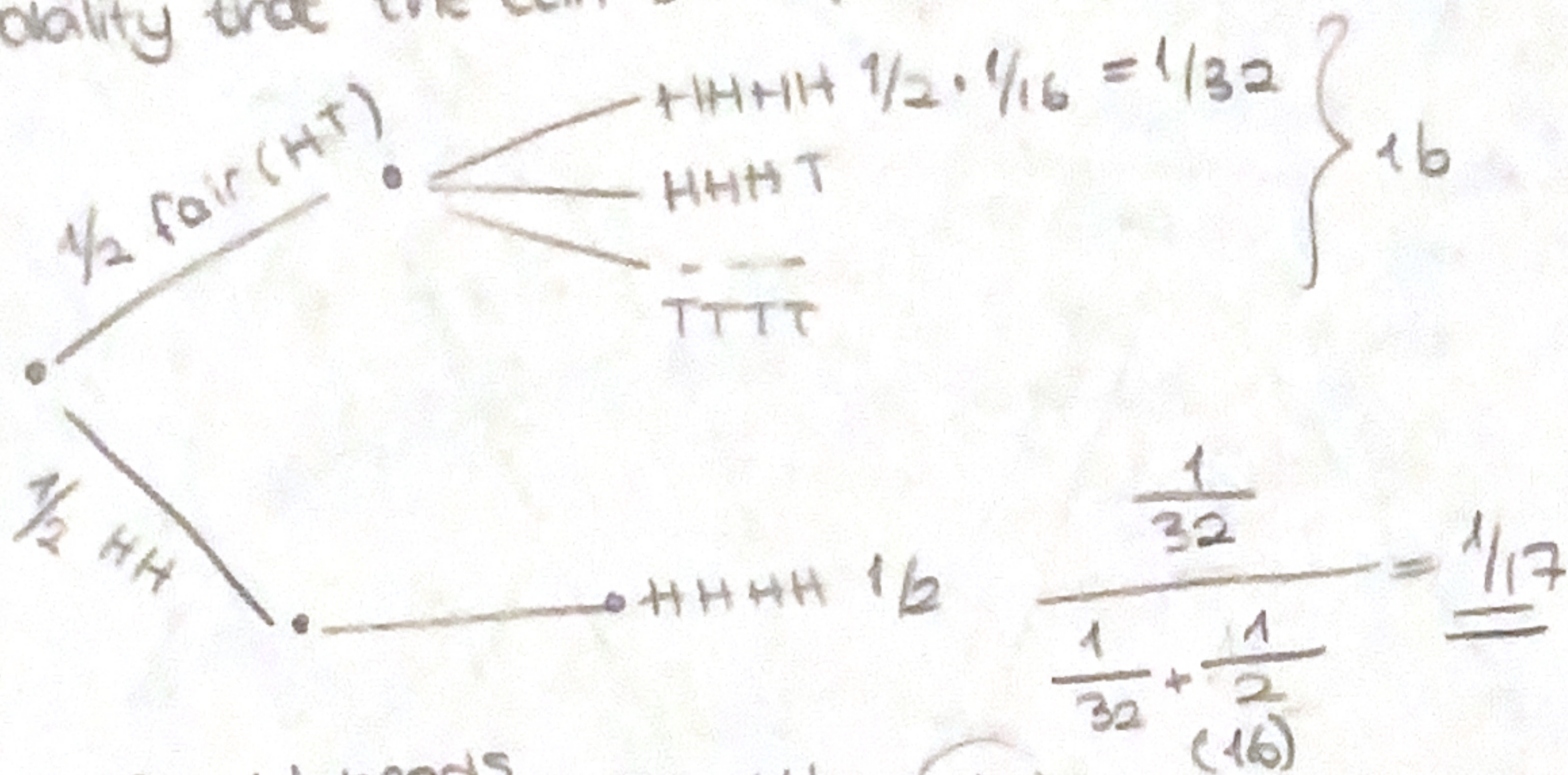


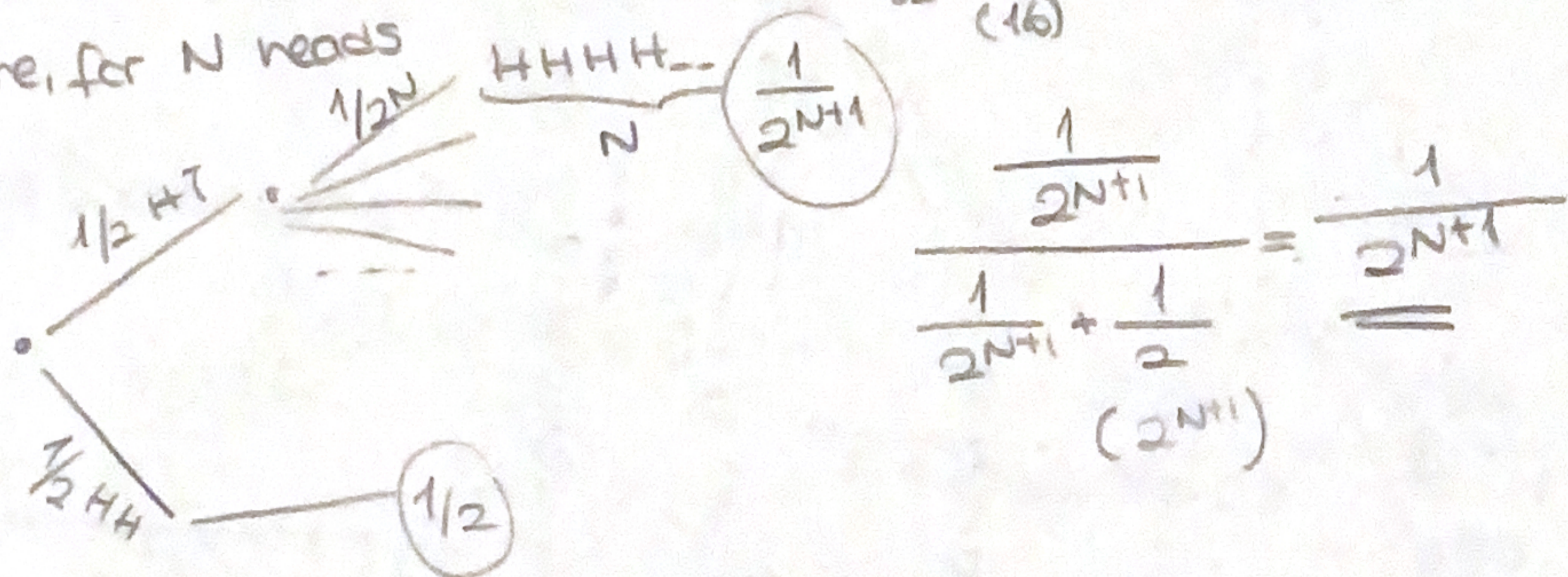
HW

1) Two coins in pocket. One is fair, other heads on both sides. Pick one, toss randomly, get HHHH.

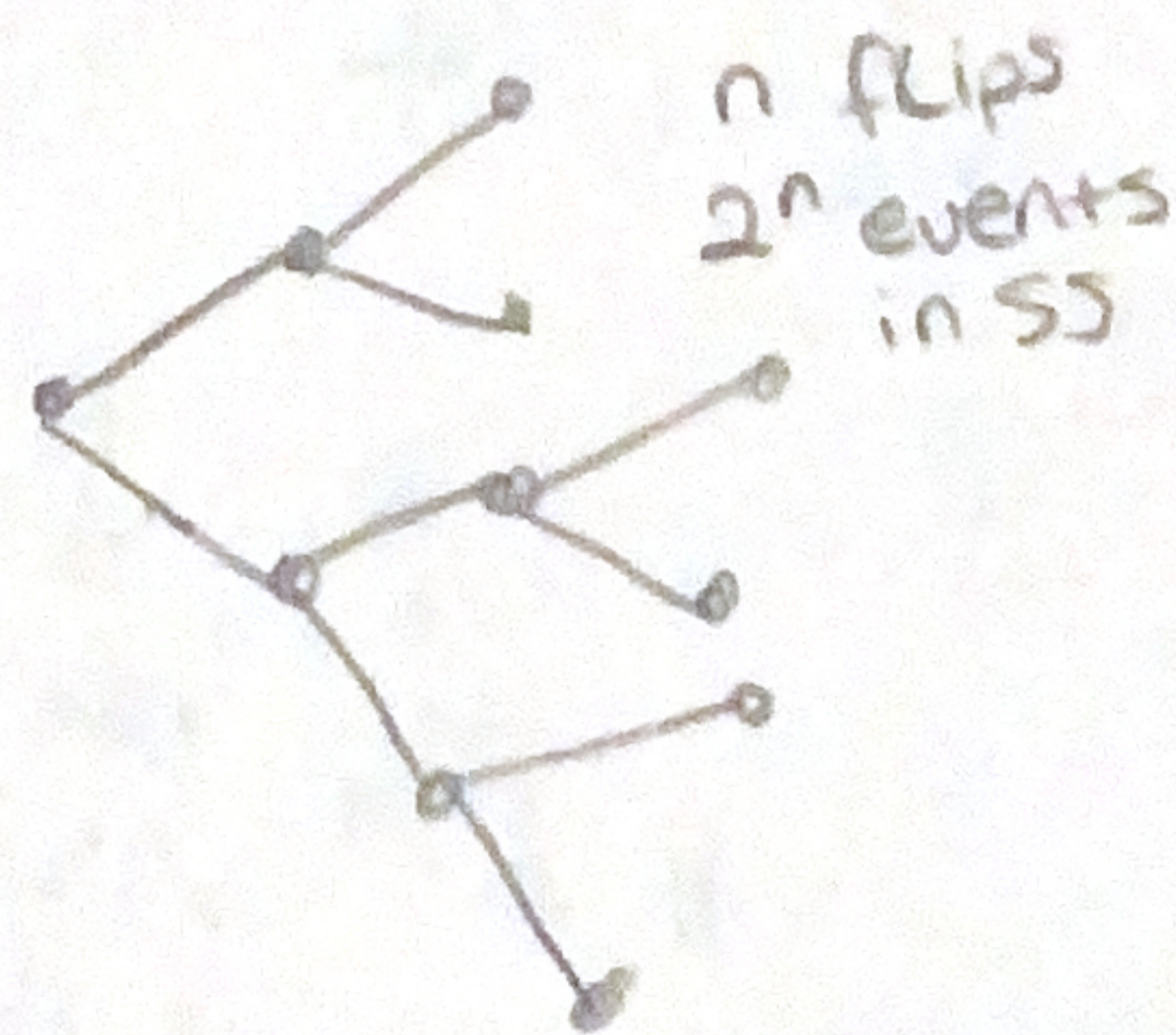
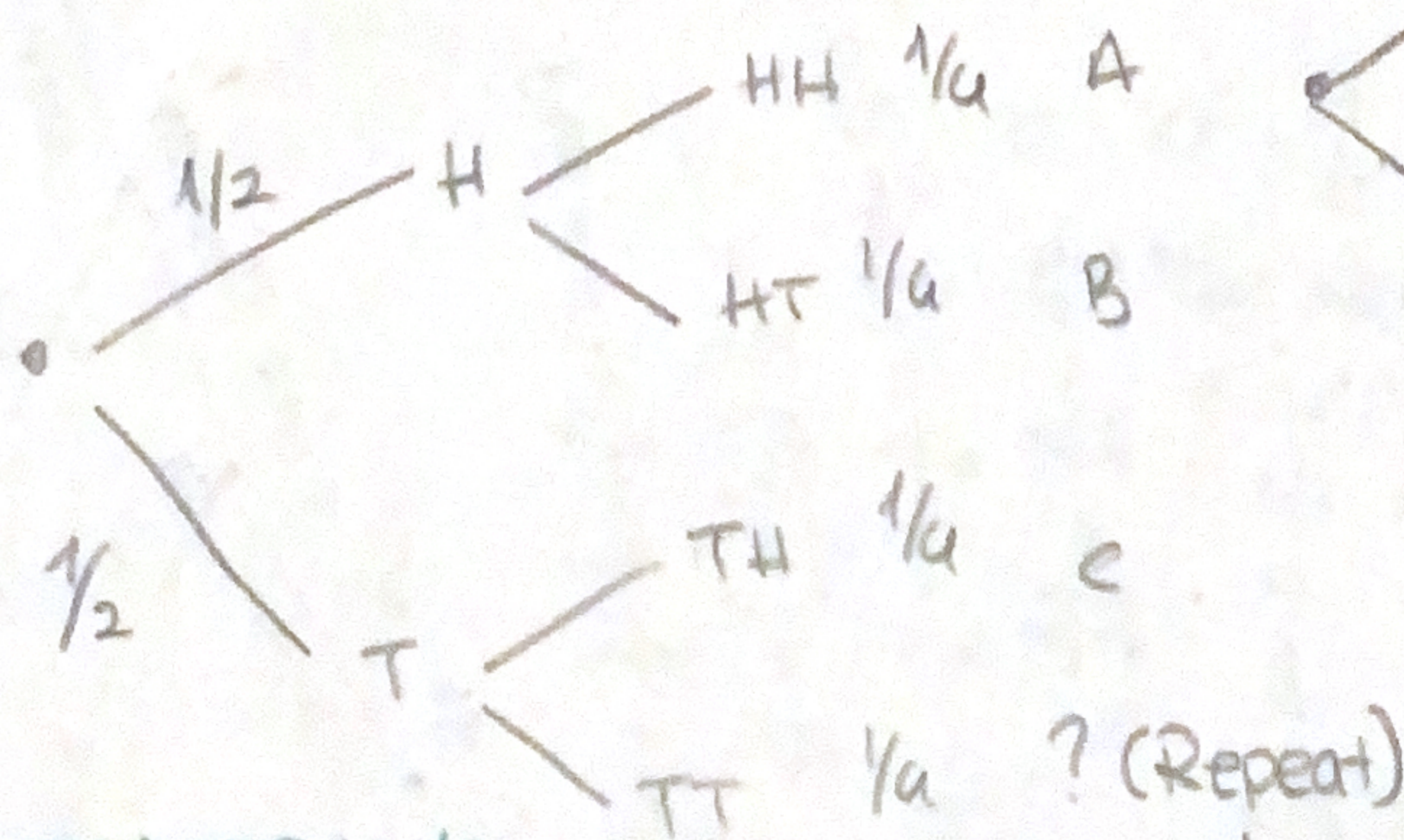
i) Probability that the coin was fair? $P(\text{fair})$?



ii) Same, for N heads



2) Three Choices with a coin I have a fair coin. Make a procedure to pick one of three choices (A, B, C) so each choice is equally likely.



2^n equally likely outcomes

$\frac{2^n}{3}$ is not possible

• Approximate to $1/3$
32-bit number (32 flips)
 2^{32} ← Sample space size

not