In-class assignment

Question 1. Given that $MatMul–Checker$ reported that a resulting matrix $C = AB$ is correct k times in subsequent runs, show the likelihood that $AB \neq C$.

If the algorithm reported $AB = C$ in all k independent and subsequent runs, the probability that $AB \neq C$ is $P(\text{output} = \text{correct across k runs} \mid AB \neq C) \leq 1/2^k$. We can't use Bayes, since we have no prior knowledge about our inputs.