Validating Data Generating Processes- Step-by-Step Lesson

A model says that a spinning coin falls tails up with probability of 0.5.

Would a result of 10 heads in row cause you to question the model?



Explanation:

YES. 10 flips being heads in a row is highly improbable if the probability of tails is 0.5. $(0.5^{10} < 1/1000)$ There is less than a 1 in 1000 chance that the model is correct. Explanation works with smaller sample sizes (like, less than 5)