calculations – six coins

given coin is fair:
  • probability six heads  =  \( \frac{1}{2^6} = \frac{1}{64} \)
  • probability six tails  =  \( \frac{1}{2^6} = \frac{1}{64} \)
  • probability either  =  \( \frac{2}{64} \approx 3\% \)

\( H_0 \) – coin is fair
\( H_1 \) – coin is not-fair

likelihood ( HHHHHH or TTTTTT | \( H_0 \) ) < 5%

your experiment

toss 6 coins
  record how many heads or tails

if HHHHHH or TTTTTTT
  you can reject \( H_0 \) with \( p < 5\% \)

see how many times you do it before
  you get 6 in a row