

EVEN=TAILS AND HEADS DETERMINED BY A COIN. ODD=TAILS AND HEADS DETERMINED BY PERSON.

1. EVEN: T H H H H T T H T T H T T T H T T T T T H T H H H T H T H T T H H T H H H T T H T H T  
T H T  $P(H)=23/50=0.46$
2. ODD: H T T T H H T H H H T H H T T H H H T T H T T H H T H H T T T H H T T H H T T H T H H T H T  
H T H H  $P(H)=26/50=0.52$
3. ODD: H T T H H T T T H H T T H H T H T H H T T H T H H T T H H T H T T H H T T H T H T H H H T H  
T H T  $P(H)=25/50=0.5$
4. ODD: H H T H T H H H T T H T H H H T H T T T H T H H H H H T T H T H T T T H T H T T T H T T T H T H  
H T H  $P(H)=26/50=0.52$
5. ODD: T T H T H H H T T T H H T H H H H H H H T T H T H T H H H T T T T H H H T T T T H T H T H T  
H H T  $P(H)=27/50=0.54$
6. ODD: T H H T T T H T H H H H T T H T H T T H H H T H H H T T H T T T H H H H T T H T T H T H T T T  
H H T  $P(H)=25/50=0.5$
7. ODD: H T T H T T H H T H T T T H T H H H T H H H T T H T H T H H T T H H T H T H T H T T T H T H  
T H H  $P(H)=25/50=0.5$
8. ODD: H H T H T H H T T T T H H T H H H T T T H H T T H H T T H T H T T T T H H H H T H H T T T H H  
T T H  $P(H)=25/50=0.5$
9. EVEN: T T T H H H H H H T T H T T H T H H H H H H H H T T T H H H H T T H H T T H H H H T H T T T  
T H T T  $P(H)=28/50=0.56$
10. EVEN: H T H H T T T H T H T T T H H H T H T H H T H H T T H T H H T T H H H T T H T T T H T T H T T  
H H H  $P(H)=25/50=0.5$
11. ODD: T T H T H T T H H H T H H T T T H T H T T T H T H H H T H T H H T H H T T H T T H T H T H T T  
H T H  $P(H)=24/50=0.48$
12. ODD: H T T T H T H T H H H H H T T H T T H H T T T H T H H H H T T T T H T H H T T H T H T T T H H  
H T T  $P(H)=24/50=0.48$
13. ODD: T T T H T H T T H H H H T T H H T H T T T H T H H H T T H H H H H T T T H H T H T T H T T H T  
T T H  $P(H)=24/50=0.48$
14. EVEN: H H H T H T T H T H H T T H H T T T H H T H T H H T T H H T H H T T T H H H T T H T H H H T  
T H H T  $P(H)=27/50=0.54$
15. ODD: H H T T T H T H T H H H T T H T H H T T H H T H T H T H H T T H H T H T T H T H T T T H T  
H T H H  $P(H)=26/50=0.52$
16. ODD: H H H T T H T T H T H H T T T T H H T H T T H H H T T H T H T T T H H T H T T H H H H T T  
T H T  $P(H)=24/50=0.48$
17. EVEN: T H H T T H T H H T H T H T H T T H T H T H H H H H T T H H T H T H T H T T T T H T T H T T  
H H T  $P(H)=24/50=0.48$
18. ODD: H H H T H T H H T T T T H T H H T T H H T T T T H H T H H T H T T H T H T H H T H T T T H H  
H T T  $P(H)=24/50=0.48$
19. EVEN: H T T T T H T T T H H H H H H T H H H T T T T H H H T T T T T H T H H H T T H T H T H H H  
T T H  $P(H)=24/50=0.48$
20. EVEN: T T T H H T T T H T T T H T T T T H T H H T H T H T H H T T H H H H T T T T H T H H H H H H T  
T T H  $P(H)=23/50=0.46$

The main thing to notice here is the actual amount of heads (or tails) that could show up in a row when the choice of H or T is determined by a coin. Some of you were biased in your tosses because of what I had said in class about how it is not uncommon to have long strings of heads and tails. Notice too that when all the probabilities are calculated, the actual probability of a head showing up when the coin toss method is used (that is randomness is used) is not commonly right at 0.50. The probability actually gets as high as 0.56 and as low as 0.46. When the sequence of H's and T's is determined by a human, the probabilities are typically very close to a half. The furthest is 0.54. The most common is 0.48.