

Understand the difference between independent and dependent events. 6PS3.5

47. Mr. Gulati is holding five cards numbered 1 through 5. He has asked five students to each randomly pick a card to see who goes first in a game. Whoever picks the card numbered 5 goes first. Juanita picks first, gets the card numbered 4, and keeps the card. What is the probability that Yoko will get the card numbered 5 if she picks second?

- A $\frac{1}{2}$
- B $\frac{1}{3}$
- C $\frac{1}{4}$
- D $\frac{1}{5}$

49. Heather flipped a coin five times, and each time it came up heads. If Heather flips the coin one more time, what is the theoretical probability that it will come up tails?

- A $\frac{1}{6}$
- B $\frac{1}{2}$
- C $\frac{3}{5}$
- D $\frac{5}{6}$

48. A bag contained four green balls, three red balls, and two purple balls. Jason removed one purple ball from the bag and did not put the ball back in the bag. He then randomly removed another ball from the bag. What is the probability that the second ball Jason removed was purple?

- A $\frac{1}{36}$
- B $\frac{1}{9}$
- C $\frac{1}{8}$
- D $\frac{2}{9}$

50. Anna has the letter tiles below in a bag.

S T A T I S T I C S

She reached in the bag and pulled out an S. She then put the tile back in the bag. If Anna randomly selects a tile from the bag, what is the probability she will select an S again?

- A $\frac{1}{5}$
- B $\frac{2}{9}$
- C $\frac{3}{10}$
- D $\frac{1}{3}$