

P.I. A.S.19: Determine the number of elements in a sample space and the number of favorable events

1. A coin is tossed. If a head appears, a spinner that can land on any of the numbers from 1 to 6 is spun. If a tail appears, the coin is tossed a second time instead of spinning the spinner. Which outcomes are possible?

[A] (T, H), (T, T), (H, 1), (H, 2), (H, 3), (H, 4), (H, 5), (H, 6)

[B] (T, H), (T, T), (T, 1), (T, 2), (T, 3), (T, 4), (T, 5), (T, 6)

[C] (T, H), (H, H), (H, 1), (H, 2), (H, 3), (H, 4), (H, 5), (H, 6)

[D] (T, H), (H, H), (T, 1), (T, 2), (T, 3), (T, 4), (T, 5), (T, 6)

2. Marta has a bag filled with 5 red, 7 green, and 4 blue marbles. List the possible outcomes for drawing two marbles.

3. A spinner that has 3 sections of equal area, numbered from 1 to 3, is spun two times in succession. Find the sample space composed of equally likely events. Which of the following is/are not part of the sample space?

I. (1, 1) II. (3, 4) III. (2, 3) IV. (3, 2)

[A] All of the outcomes are possible.

[B] I only

[C] I and II only

[D] II only

4. A spinner that has 3 sections of equal area, numbered from 1 to 3, is spun two times in succession. Find the sample space composed of equally likely events.

[1] A

[2] red, red; red, green; red, blue; green, green; green blue; blue,blue

[3] D

[4] $\{(1, 1), (1, 2), (1, 3), (2, 1), (2, 2), (2, 3), (3, 1), (3, 2), (3, 3)\}$