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NCERT Exemplar 10.13.3.28

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Question 10.13.3.28

The king, queen and jack of clubs are removed from a deck of 52 playing cards and then well shuffled. Now one card is drawn at random from the remaining cards. Determine the probability that the card is

- (i) a heart
- (ii) a king

Solution:

Total number of cards left

$$52 - 3 = 49$$
 (1)

| Random variable | Sample space | Value | Event | Probability |
|-----------------|--------------|-------|---------------------|-------------|
| X_1 | 49 | 1 | the card is a heart | 13 49 |
| X_2 | 49 | 1 | the card is a king | 3 49 |