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| **Theoretical Probability with Playing Cards** | | | | |
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| **(a)** | **(b)** | **(c)** | | **(d)** |
| A playing card is chosen at random. What is the probability that it is a red card? | A playing card is chosen at random. What is the probability that it is a king (K)? | A playing card is chosen at random. What is the probability that it is the ace (A) of hearts? | | A playing card is chosen at random. What is the probability that it is a spade card? |
| **(e)** | **(f)** | **(g)** | | **(h)** |
| A playing card is chosen at random. What is the probability that it is not a diamond card? | A playing card is chosen at random. What is the probability that it is a 2, 3 or 4? | A playing card is chosen at random. What is the probability that it is a queen (Q) or a king (K)? | | A playing card is chosen at random. What is the probability that it is a red card with a prime number on it? |
| **(i)** | **(j)** | | **(k)** | |
| A playing card is chosen at random. What is the probability that it is a red non-picture card? | Bruce chooses a card at random, looks at it and then replaces it in the deck. He repeats this 520 times. How many times would Bruce expect to see an ace? | | Nadia chooses a card at random, looks at it and then replaces it in the deck. She repeats this 260 times. How many times would Nadia expect to see a red jack (J) or red queen (Q)? | |