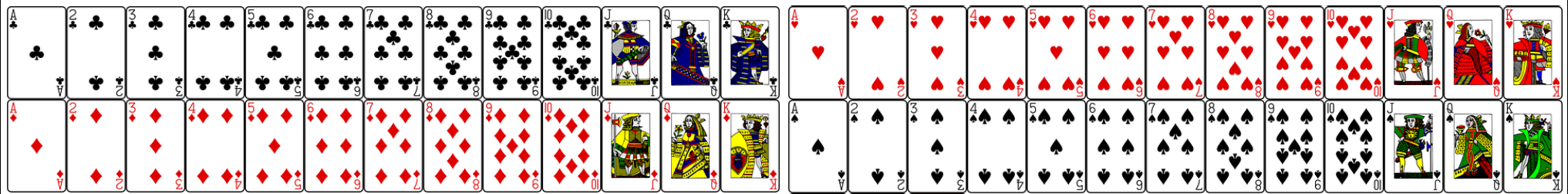


Theoretical Probability with Playing Cards



(a)	(b)	(c)	(d)
<p>A playing card is chosen at random. What is the probability that it is a red card?</p> $\frac{26}{52} = \frac{1}{2}$	<p>A playing card is chosen at random. What is the probability that it is a king (K)?</p> $\frac{4}{52} = \frac{1}{13}$	<p>A playing card is chosen at random. What is the probability that it is the ace (A) of hearts?</p> $\frac{1}{52}$	<p>A playing card is chosen at random. What is the probability that it is a spade card?</p> $\frac{13}{52} = \frac{1}{4}$
(e)	(f)	(g)	(h)
<p>A playing card is chosen at random. What is the probability that it is not a diamond card?</p> $\frac{39}{52} = \frac{3}{4}$	<p>A playing card is chosen at random. What is the probability that it is a 2, 3 or 4?</p> $\frac{12}{52} = \frac{3}{13}$	<p>A playing card is chosen at random. What is the probability that it is a queen (Q) or a king (K)?</p> $\frac{8}{52} = \frac{2}{13}$	<p>A playing card is chosen at random. What is the probability that it is a red card with a prime number on it?</p> $\frac{8}{52} = \frac{2}{13}$
(i)	(j)	(k)	
<p>A playing card is chosen at random. What is the probability that it is a red non-picture card?</p> $\frac{20}{52} = \frac{5}{13}$	<p>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?</p> <p style="text-align: center;">40</p>	<p>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)?</p> <p style="text-align: center;">20</p>	