

Probability

Computing Empirical Probability

Computing Theoretical Probability

The Probability of an Event Not Occurring

Or Probabilities with Mutually Exclusive Events

Or Probabilities with events That Are Not Mutually Exclusive

And Probabilities with Independent Events

Marital Status of the United States Population, Ages 18 or Older, in Millions

Never Married	Married	Widowed	Divorced	Total
28.6	62.1	2.7	9.0	102.4
23.3	62.8	11.3	12.7	110.1
51.9	124.9	14.0	21.7	212.5

Ex. A person is divorced.

Ex. A widowed male













Ex. Among those who are divorced, probability of selecting a woman.

A die is rolled

Probability of getting a 2.

Probability of a number greater than 4

Probability of a number less than zero.

		<i>Second Roll</i>					
							
<i>First Roll</i>		(1, 1)	(1, 2)	(1, 3)	(1, 4)	(1, 5)	(1, 6)
		(2, 1)	(2, 2)	(2, 3)	(2, 4)	(2, 5)	(2, 6)
		(3, 1)	(3, 2)	(3, 3)	(3, 4)	(3, 5)	(3, 6)
		(4, 1)	(4, 2)	(4, 3)	(4, 4)	(4, 5)	(4, 6)
		(5, 1)	(5, 2)	(5, 3)	(5, 4)	(5, 5)	(5, 6)
		(6, 1)	(6, 2)	(6, 3)	(6, 4)	(6, 5)	(6, 6)

Two numbers who sum is four.

Two numbers who sum is seven.

Two numbers whose sum is one.

A poker hand consists of five cards.

- Find a total number of possible five-card poker hands.
- A diamond flush is a five-card hand consisting of all diamonds. Find the number of possible diamond flushes.
- Find the probability of being dealt a diamond flush.

Standard deck of cards

Probability not drawing an ace

Probability not drawing a picture card

Probability of a red card or a seven.