
Conditional Probability

Independent Probability

Find the probabilities of the events below and write the responses in the open space.

- Rolling a 5 and then an even number
- Flipping a coin, getting heads, and then rolling a 5
- Flipping a coin 3 times and getting all heads
- (Bonus) Rolling a 3 or a 5, and then rolling an even number

Dependent Probability

For these questions let us assume we have a standard deck of cards. In a deck of cards there are four suits: hearts (\heartsuit), diamonds (\diamondsuit), clubs (\clubsuit), and spades (\spadesuit). Each suit has thirteen cards consisting of: one ace, numbers 2 - 10, a jack, a queen, and a king. The jack, queen, and king are considered “face cards.” Diamonds and hearts are colored red, and spades and clubs are colored black.

Find the probabilities of the events below and write the responses in the open space.

- Drawing an Ace then Drawing a Jack of Hearts
- Drawing a 10 of Diamonds, then drawing a red card
- Drawing a 5 of Spades, then another 5 of Spades
- (Bonus) Drawing an Ace, a King, a Queen, and a Jack in that order
- (Super Bonus) Drawing any color of Ace, then a red Ace

Conditional Probability

Let us say that we have 100 cars and they are broken up as follow into types and colors.

	Race Car	Mini-Van	SUV	Truck	Total
Red	8	7	0	9	24
Silver	3	3	7	7	20
Black	2	8	5	12	27
Green	0	16	4	9	29
Total	13	34	16	37	100

Find the probabilities of the events below and write the responses in the open space.

- A green car given it is an SUV

- A truck given that it is silver

- A race car given that it is green

- A mini-van given that it is black

- An SUV given that it is black OR silver