Question

In a deck of strange cards, there are 345 cards. Each card has an image and a color. The amounts are shown in the table below.

	black	teal	violet	white	Total
bike	16	47	36	25	124
flower	33	26	13	30	102
wheel	24	48	32	15	119
Total	73	121	81	70	345

0.127, 0.269

Answerlist

- What is the probability a random card is a wheel given it is violet?
- What is the probability a random card is a wheel?
- Is a flower or a wheel more likely to be violet?
- What is the probability a random card is either a flower or teal (or both)?
- What is the probability a random card is white given it is a flower?
- What is the probability a random card is both a wheel and white?
- What is the probability a random card is teal?

Solution

Answerlist

- $P(\text{wheel given violet}) = 0.395$
- $P(\text{wheel}) = 0.345$
- $P(\text{violet given flower}) = 0.127$ and $P(\text{violet given wheel}) = 0.269$, so a wheel is more likely to be violet than a flower is.
- $P(\text{flower or teal}) = 0.571$
- $P(\text{white given flower}) = 0.294$
- $P(\text{wheel and white}) = 0.0435$
- $P(\text{teal}) = 0.351$

Meta-information

extype: string exsolution: answer exname: marbles extol: 0.01