

Probability Examples

Example 1

- Deadpool - R
- How to be Single - R
- Zoolander 2 - PG-13
- The Choice - PG-13
- Hail, Caesar! - PG-13
- Pride and Prejudice and Zombies - PG-13
- The Finest Hours - PG-13
- Kung Fu Panda 3 - PG
- The 5th Wave - PG-13
- The Boy - PG-13
- 13 Hours - R
- Ride Along 2 - PG-13
- The Revenant - R
- Star Wars - PG-13

Example 2

At a local elementary school 50% of the students live with both their mother and father. 60% live with their father. 85% live with their mother.

Find the probability that a randomly selected student lives with their mother or father.

Example 3

O'Rubblbee's has found that there's a 38% chance that a party's tab will include at least one alcoholic beverage, a 17% chance that it will include at least one dessert, and an 9% that it will include both alcoholic beverage(s) and dessert(s).

What's the probability that a party purchases neither alcoholic beverages nor dessert?

Example 4

Of the sodas in the convenience store, 80% contain sugar and 90% contain caffeine. 98% contain either sugar or caffeine.

What percentage contain both sugar and caffeine?

Example 5

132 students were randomly sampled.

	SC	Out-of-State	Totals
Freshman	34	21	55
Sophomore	30	15	45
Junior	18	2	20
Senior	6	6	12
Totals	88	44	132

Example 6

55% of the employees at MartStore are part time employees. 52% of MartStore's employees also have a job somewhere else. 30% of MartStore's employees work there full time and also have a job somewhere else.

What percentage of the employees are full time or have a second job?

What percentage of the part time employees have a job somewhere else?

What percentage of the full time employees have a job somewhere else?

Example 7

50% of our team's games were home games. We won 63% of the games we played. 40% of our games were home game victories.

What was our win percentage for home games?

What was our win percentage for away games?

Example 8

65% of the diners in Thomson are students (the rest are faculty/staff). 60% of the students get dessert with their meal. 80% of the faculty/staff get dessert with their meal. If a randomly selected diner is getting dessert, what's the probability that the diner is a student?

Example 9

40% of unemployed American adults are married. 52% of employed American adults are married. 5% of adults in the US are unemployed. Find the probability that a married American is unemployed.

Example 10

J and O are salespersons at B Sales. J has a 78% customer satisfaction rating, and O has an 87% customer satisfaction rating. 40% of the company's sales were made by J, and 60% were made by O. Find the probability that an unsatisfied customer made their purchase from O.

Example 11

45% of eligible voters under the age of 30 will actually vote. 72% of eligible voters over the age of 65 will actually vote. 65% of eligible voters between the ages of 30 and 65 will actually vote. 21% of eligible voters are under 30, 60% of eligible voters are between 30 and 65 years old, and 19% of eligible voters are over 65.

Find the probability that someone who actually votes is under 30.

Find the probability that someone who actually votes is over 65.

Example 12

65% of the customers at Fair Auto Repair drive vehicles that are more than 10 years old. They have found that 36% of the repairs on cars less than 10 years old cost more than \$250, and 63% cost between \$100 and \$250. Of the repairs on cars under 10 years old, 15% cost more than \$250, and 80% cost between \$100 and \$250.

If a repair costs less than \$100, what's the probability that it was on a car that is more than 10 years old?

If a repair costs over \$250, what's the probability that it was on a car that is more than 10 years old?