

Condition

A US Census American Housing Survey studies how US homeowners get to work, the survey consists of 1,000 homeowners and 1,000 renters. The result is:

	Drivers to work	Home Owners	Renters	
Totals	824	681	1505	No
1000	1000	2000	a)	Given that the respondent drives to work, what is the probability that he or she is a home owners? b)

Given that the respondent is a homeowner, what is the probability that he or she drives to work?

Solution

- a) Given that the respondent drives to work, what is the probability that he or she is a home owners?

$$P = \frac{824}{824 + 681} = 0,54750830564784053156146179401993$$

- b) Given that the respondent is a homeowner, what is the probability that he or she drives to work?

$$P = \frac{824}{824 + 176} = 0,824$$