

## Practice 10.3

Identify the categorical data.

- 1 Temperature, Weight, Color
- 2 Street name, Number of boxes, Time

Identify whether the given data are categorical or quantitative.

- 3 Large, medium, small
- 4 20 mi/h, 40 mi/h, 50 mi/h

Use the two-way table to answer questions 5 to 9.

In some states, all passengers in a vehicle are required to wear a seat belt when the vehicle is on a public road. A poll of 275 randomly selected vehicle passengers was conducted in a state that has the seat belt law to determine the association between passengers who know the seat belt law and passengers who obey this law.

		Yes	No	Total
Wears Seat Belt	Yes	130	?	?
	No	?	15	50
	Total	165	110	275

- 5 Find the number of passengers who wear seat belts.
- 6 Find the number of passengers who wear seat belts and do not know the seat belt law.
- 7 Find the number of passengers who do not wear seat belts and know the seat belt law.
- 8 Describe what you can see in the data from the row totals and column totals.
- 9 Is there any association between the passengers who know the seat belt law and passengers who obey the seat belt law?

Use the data below to answer questions 10 to 12.

A survey of 24 households shows whether they save a portion of their income regularly and whether they have life insurance.

Save Regularly	NS	S	S	S	NS	NS	NS	NS	NS	S	S	S
Have Life Insurance	NL	NL	L	L	L	NL	NL	NL	NL	L	NL	L

Save Regularly	S	NS	NS	NS	S	S	S	S	NS	NS	NS	NS
Have Life Insurance	L	NL	NL	L	NL	L	L	L	NL	L	NL	NL



S represents save regularly  
 NS represents do not save regularly  
 L represents have life insurance  
 NL represents do not have life insurance

- 10 Arrange the above data into a two-way table.
- 11 Do more or fewer households have life insurance than not? Support your answer with the given data.
- 12 Is there any association between households that save regularly and households that have life insurances? Justify your answer from the data.

Use the table to answer questions 13 to 15.

The table below shows whether the sales target of salespeople are met and whether they are paid on commission.

		Sales Target Met		Total
		Yes	No	
Commission	Yes	245	85	330
	No	12	64	76
	Total	257	149	406

- 13  Find the relative frequencies within each row, and interpret their meanings. Round your answer to the nearest hundredth when you can.
- 14  Find the relative frequencies within each column, and interpret their meanings. Round your answer to the nearest hundredth when you can.
- 15 Describe the association between a salesperson meeting the sales target and whether the salesperson is paid on commission.