

Name: _____ Block: _____ Date: _____

Two-Way Data Tables – Day 2

Relationships in Categorical Data

Print or Digital News

To plan their marketing for an upcoming year, a media organization asked consumers, “Do you prefer print newspapers or digital news?” The table shows the preferences by age group.

	Prefer print newspaper	Prefer digital news
Age \leq 40	45	60
Age $>$ 40	15	20

- Does it look like younger and older readers have the same preferences in news type?

A. Use the survey data. Is each statement true or false? Explain.

1. Younger readers are three times as likely as older riders to prefer print newspapers.
2. Younger readers are three times as likely as older riders to prefer digital news.
3. The number of readers who prefer print newspapers is about three quarters of the number who prefer digital news.
4. Younger readers are more likely than older readers to prefer digital news.
5. Older readers are more likely than younger readers to prefer print newspapers.

B. Suppose that the media organization had each news type available. One day there were 210 readers over the age of 40 and 525 readers under the age of 40.

Use the survey data from Question A to help you answer the following questions.

1. How many readers would you expect to read the print newspaper and how many would you expect to read the digital news? Show your thinking.

2. How would you expect those readers to be distributed by age and media type in the following table?

	Prefer print newspaper	Prefer digital news	Total
Age \leq 40			525
Age > 40			210
Total			

C. Based on the data, which type of news would you recommend the company put more money towards? Explain your choice.