

Name: Key Hr: _____

14.5

Conditional Probability 2

Use the table below to answer questions 1 through 5.

	Adult	Child	Total
Vanilla	52	26	78
Chocolate	41	105	146
Total	93	131	224

1. What percent of the people like chocolate?

$$\frac{146}{224} = 65\%$$

2. What percent of the children like vanilla?

$$\frac{26}{131} = 19.8\%$$

3. What percent of those that like chocolate are adults?

$$\frac{41}{146} = 28\%$$

4. What percent of the people surveyed were children that liked chocolate?

$$\frac{105}{224} = 47\%$$

5. Is chocolate more popular among children or adults? Explain your reasoning.

~~Adults~~ kids!

of the 146 that like chocolate
41 Adults, - 28%
105 kids - 72%

The following table represents data from a survey of people asking them if they slept better after eating a big meal. Data indicating whether or not the participants ate a big meal as well as whether or not they slept well is recorded in the table below.

Complete the table:

	BM	NB	
	Big Meal	Not a Big Meal	Total
SW	1,012	505	1517
DS	184	299	483
Total	1,196	804	2000

6. Of those that slept well, what percentage ate a big meal?

$$\frac{1,012}{1,517} = 66.7\%$$

7. Of those that ate a big meal, what percentage slept well?

$$\frac{1,012}{1,196} = 84\%$$

8. What is the sample space of this survey? (What are the possible responses?)

SW & BM, SW & NB,
DS & BM, DS & NB

4 outcomes

9. From the survey data, would you conclude that eating a big meal will help you sleep well? Why or why not?

More people who ate a big meal slept well ^{than} those who did not
 more people who slept well ate a big meal first