

9.2 Conditional Probability

Name: Odd Answers Class: _____

The two-way table below gives information about how students travel to school in the morning.

	Bus	Different Method	Total
Juniors	28	27	55
Seniors	15	35	50
Total	43	62	105

Use the table to find the following probabilities. Give probabilities as reduced fractions and percents.

1) P(Bus)

$$\frac{43}{105}, 41.0\%$$

2) P(Junior)

3) P(Senior)

$$\frac{10}{21}, 47.6\%$$

4) P(Senior \cap Different Method)

5) P(Junior \cap Bus)

6) P(Senior \cup Different Method)

$$\frac{4}{15}, 26.7\%$$

7) P(Junior \cup Bus)

8) P(Senior | Bus)

9) P(Bus | Junior)

$$\frac{2}{3}, 66.7\%$$

$$\frac{28}{55}, 50.9\%$$

A survey of 115 students was done to see how many boys and girls carry gum with them. Fill in the missing information.

	Boys	Girls	Total
Gum	40	43	83
No Gum	14	18	32
Total	54	61	115

Use the table to find the following probabilities. Give probabilities as reduced fractions and percents.

10) P(Gum)

11) P(No gum)

12) P(Boy \cup Gum)

$$\frac{32}{115}, 27.8\%$$

13) P(Girl \cup Gum)

14) P(Girl \cap No gum)

15) P(Boy \cap Gum)

$$\frac{101}{115}, 87.8\%$$

$$\frac{8}{23}, 34.8\%$$

16) P(Gum | Girl)

17) P(Boy | Gum)

18) P(No gum | Boy)

$$\frac{40}{83}, 48.2\%$$