

## Reading Guide #3(12,13),6,7

12.  $\frac{32}{66} \rightarrow$  overall 48.5% are female. However ( $\frac{4}{12}$ ) 33% of blue-eyed students are female, ( $\frac{14}{36}$ ) 44% of brown-eyed students are female and ( $\frac{12}{18}$ ) 67% of G/H/O-eyed students are female.

13. Not independent (associated) because it seems <sup>from our's small sample</sup> blue-eyed students are less likely to be female than other colors.

6. What does it mean for two variables to have an *association* or be *independent*?

If 2 variables are associated it means that one variable may be affecting the other, while independence means they do not affect each other.

7. In the *Step-by-Step* section (fish consumption and prostate cancer), the two way table shows there are more men with prostate cancer who had fish as a moderate part of their diet (209) than men who seldom or never ate fish (14). However, this does not necessarily mean that eating more fish is associated with a higher rate of prostate cancer. Look over the section carefully and describe what *additional* comparisons were made in this example that supported the possibility that eating more fish could be associated with a *lower* rate of prostate cancer.

They looked at the percent of men with prostate cancer for each of the 4 fish consumption categories. It shows men who ate at least a small amount of fish had a slightly lower proportion of prostate cancer (~7%) compared to men who ate no fish (~11%).

Problem #1, 19

1. C. a lower percentage of boys signed up than girls

19. a. 59.9%  $\frac{115}{192}$   
b. 14.1%  $\frac{27}{192}$   
c. 18.3%  $\frac{21}{115}$   
d. 10.9%  $\frac{21}{192}$   
e. 77.8%  $\frac{21}{27}$

In Your World Worksheet - Use for discussion purposes but answers are here

1a. 7 teens (on average) died per day in 2010


b. 77% of teens use seatbelts (lowest of all age groups)

c. 23% of teens don't use seatbelts.

2. While not wearing seatbelts is not causing the accidents, the fact that fewer teens are wearing seatbelts makes them more likely to die in an accident. 56% of those who were killed did not have their seatbelts buckled.

3. Males are even less likely to wear seatbelts and their death rate is almost double that of females. I would like to know why they aren't wearing them? Is the higher death rate do to less seatbelt use, or because they tend to be riskier drivers?

## More Practice With Two-Way Tables

 <https://emathinstruction.com/wp-content/uploads/2014/11/CCA1g1-U10L5-Two-Way-Frequency-Tables.pdf>

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Homework: Two Way Frequency Table Wksht

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