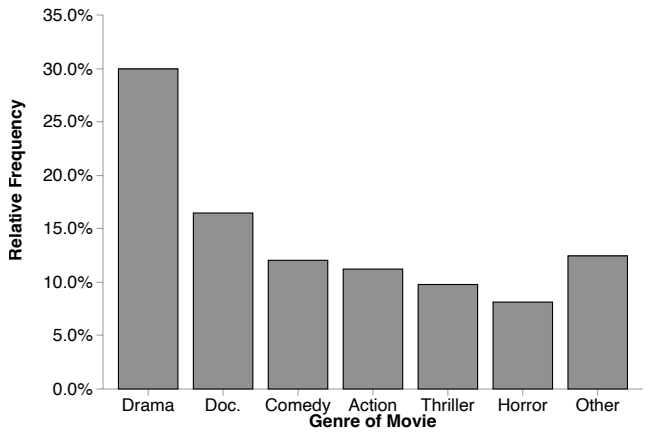
Lesson #2 · Topic 1B · Practice

Answer Key

1. Answers will vary.
   Sample answers:
   Quantitative variables: height, number of children in a family
   Categorical variables: favorite color, birth country

2. a. The 30 major league baseball teams
   b. stadium capacity, number of wins last season
   c. league, whether or not they reached the playoffs last season

3. a. Genre of movie. Categorical.
   b.


   c. Pie chart

4. a. Age is the explanatory variable and preferred format for listening to music is the response variable.
   b. $\frac{95}{1,576} = 0.06 = 6\%$
   c. $\frac{527}{1,576} = 0.334 = 33.4\%$
   d. $\frac{386}{692} = 0.558 = 55.8\%$

5. a. $\frac{386}{677} = 0.570 = 57.0\%$
   b. $\frac{306}{899} = 0.340 = 34.0\%$
   c. Yes. Knowing a person's age helps us to predict their preferred listening format. A person who is less than 45 years old is more likely to prefer streaming than a person 45 years or older.

6. No, this graph is misleading because the y-axis does not start at zero. The differences in enrollment between the three classes are being exaggerated.

7. This bar graph is using pictures of cars instead of bars, where the height and width of the picture is changing. The areas of the cars in the pictures exaggerates the difference in frequencies.

8. A

9. D