## Answer on Question \#44228, Math, Statistics and Probability

2.8 Fifty randomly selected adults who follow professional sports were asked to name their favorite professional sports league. The results are as follows where MLB = Major League Baseball, MLS = Major League Soccer, NBA = National Basketball Association, NFL = National Football League, and NHL = National Hockey League.

NFL NBA NFL MLB MLB NHL NFL NFL MLS MLB
MLB NFL MLB NBA NBA NFL NFL NFL NHL NBA
NBA NFL NHL NFL MLS NFL MLB NFL MLB NFL
NHL MLB NHL NFL NFL NFL MLB NFL NBA NFL MLS NFL MLB NBA NFL NFL MLB NBA NFL NFL
a. Find the frequency distribution, relative frequency distribution, and percent frequency distribution for these data.
b. Construct a frequency bar chart for these data.
c. Construct a pie chart for these data.
d. Which professional sports league is most popular with these 50 adults? Which is least popular?

## Solution.

a.

|  | MLB | MLS | NBA | NFL | NHL | Total |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Frequency | 11 | 3 | 8 | 23 | 5 | 50 |
| Relative frequency | 0,22 | 0,06 | 0,16 | 0,46 | 0,1 | 1 |
| Percent frequency | 22 | 6 | 16 | 46 | 10 | 100 |

b.

c.

d. The most popular is NFL = National Football League and the least popular is MLS = Major League Soccer.

