



## Data Analysis Intermediate Math

### Overview:

Students will organize and interpret results of data collection from the voting results page at [www.purpleamerica.us](http://www.purpleamerica.us). Students will be divided into groups of 3 or 4 students and together they will organize data using tables, bar graphs, line plots and line graphs.

### Standards:

- Represent and interpret data using tables, bar graphs, line plots and line graphs.
- Interpret and construct Venn diagrams to sort and describe data.
- Compare different representations of the same data to evaluate how well each representation shows important aspects of the data, and identify appropriate ways to display the data.
- Propose and explain interpretations and predictions based on data displayed in tables, charts and graphs.
- Describe the characteristics of a set of data based on a graphical representation, such as range of the data, clumps of data, and holes in the data.

### Objectives:

When this lesson is completed, students will:  
Organize data from the voting results page at [www.purpleamerica.us](http://www.purpleamerica.us).  
Compare and contrast different representations of the data.

### Length:

1 class period for introduction  
2 class periods for graphing  
1 class period for follow up discussion

### Materials:

Values-in-Action Foundation ♥ 5244 Mayfield Road ♥ Lyndhurst, OH 44124  
440-442-LOVE (5693) ♥ Fax 440-684-1934 ♥ [www.projectlove.org](http://www.projectlove.org) ♥ [www.purpleamerica.us](http://www.purpleamerica.us)

Access to voting results page at [www.purpleamerica.us](http://www.purpleamerica.us).  
Materials for making graphs

### **Applications:**

#### Step 1

As a class, explore the voting results page at [www.purpleamerica.us](http://www.purpleamerica.us). Teacher will model reading results (hover over states) and organize top three values into a graph.

#### Step 2

Organize students in groups. Have students choose two or more states to organize data into a graph. Teacher will assign variety of methods for displaying data. (bar graph, Venn diagrams, line plot)

#### Step 3

Students will present their findings to the class. Generalizations and comparisons between graphs should be discussed.

### **Assessments:**

Teachers should create a rubric to meet their expectations. Students should demonstrate an understanding of organizing data in a logical manner. Students should be able to answer questions about data represented in the graphs.



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