

# Marbles Exploration Questions

See if you can answer the following questions.

1. What effect does changing the number of marbles of a specific color have? Does it have any effect on the outcome if you change the number of all the marbles the same amount? Explain your answers.
  
2. When you run a small number of trials, how does the experimental probability compare to the theoretical probability? What do you notice as you increase the number of trials? Explain your answers.
  
3. What is the difference between the experiment where order matters and the experiment where order does not matter? How does it change the theoretical probabilities? How does it change the number of outcomes? Explain your answers.

4. Explain what advantages the bar graph has over the pie chart.  
Now, explain what advantages the pie chart has over the bar graph.  
Why might you want to look at it both ways? Explain your answers.