

## Family Letter

### Dear Parent or Guardian:

In this chapter, your child will be studying combinations and probability. It is often useful to know how many different ways we can combine items. You can determine how many different sandwich choices you have. Knowing how to find probability can help you make choices when deciding what to do in a real-world situation.

In **Chapter 8, Probability**, your child will learn to count outcomes using a tree diagram, to find the number of permutations and combinations of objects, and to find theoretical and experimental probability. Your child will also learn how to predict the actions of a large group by using a sample. In the study of this chapter, your child will complete a variety of daily classroom assignments, activities, and possibly a chapter project.

By signing this letter and returning it with your child, you agree to encourage your child by getting involved. Enclosed is an activity you can do with your child that also relates the math we will be learning in Chapter 8 to the real world. You may also wish to log on to the **Online Study Tools** for self-check quizzes, Parent and Student Study Guide pages, and other study help at **[www.msmath3.net](http://www.msmath3.net)**. If you have any questions or comments, feel free to contact me at school.

Sincerely,

Signature of Parent or Guardian \_\_\_\_\_ Date \_\_\_\_\_

## Family Activity

### Using Sampling to Predict

Work with a family member to answer the following questions.

1. Ask four family members or friends whether they prefer chocolate or vanilla ice cream. Record the answers below. Out of 20 family members and friends, how many can you expect to prefer chocolate ice cream? Is this a good sample? Explain.
  
2. Ask six family members or friends whether they would prefer to have a dog or cat as a pet. Record the results below. Out of 100 family members and friends, how many can you expect to prefer a cat as a pet? Is this a good sample? Explain.
  
3. With permission of the management, survey ten people at a local grocery store. Ask them whether they prefer to drink apple or grape juice. Record the results below. Out of 60 shoppers, how many can you expect to prefer apple juice? Is this a good sample? Explain.
  
4. Find the results of a survey in a magazine or a newspaper. How many people were in the survey? Was this a representative sample? Do you think the conclusions are reasonable? Explain.