

Algebra: Patterns and Functions

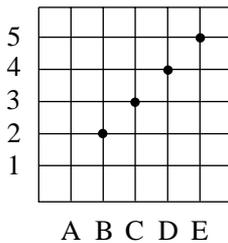
Dear Family,

These activities provide an opportunity for you and your child to share knowledge of mathematics. I invite you to choose one or two activities and complete them together. Please have your child return the family project(s) to me by _____.

Materials: graph paper • newspaper • paper • pencil

Find the Satellite

Play this game with another family member. Have each player label a five-by-five grid on graph paper, as shown here. Each player secretly marks four points in a column, row, or diagonal to show where his or her satellite is. (Do not let the other player see your grid.)



Take turns finding each point of your satellite. Guess by naming the letter and number of a point. (Example: A4) The other player marks the point named with an x and tells if the point is in the satellite. The first player to get an x on all four satellite points wins.

Paper Folding

Have family members take turns folding a sheet of paper. The first person should fold the paper in half and then unfold the paper. Count and record the number of

sections. The next person should refold the paper, fold it in half again, and then undo both folds. Again count and record the number of sections. Have a third person repeat the procedure, folding the paper in half one more time. Make a table to record the results of each fold, as shown here.

- Number of folds 0 1 2 3
- Number of sections 1 2

Finally, discuss the pattern in the table. Investigate the pattern further by folding the paper six times. Did you get the number of sections that the pattern indicates?

Food for Thought

Use the food section in the newspaper to locate advertisements for the same five items at more than one store. Items might include laundry detergent, potatoes, bread, milk, and fruit. Note and compare each item's price at each store. Then use the information to make a bar graph. Are one store's prices considerably lower on all five items? What is the range of prices for each item? Would it be worth traveling from store to store to buy the lowest-priced item? Why or why not?

What Do You Think?

Please take a few moments to let me know how you enjoyed these activities. Write your comments on the back of this sheet and have your child return it to me by _____.