

## Value of Words

### Why

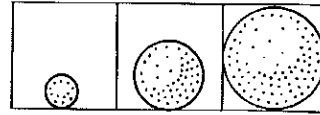
To practice mental arithmetic and estimation while problem-solving

### How

- Assign values to the letters of the alphabet, as shown:
- Have each person in your family find the value of his or her first name.
- Add up the numbers without using paper and pencil if you can.
- What is the most expensive word each of you can find?
- Can you find a word worth exactly \$50? \$100?

### More Ideas

- You and your child may want to make up different activities, such as:
  - Hold a week's contest to find the most expensive word.
  - Use penny values instead of dollars.
  - Find the difference between your first and last names.
  - Multiply the values instead of adding them.
  - Use fractional values, so that  $A=1/26$ ,  $B=2/26$ , etc.



Grade Level

### TOOLS

Pencil  
Paper

A = \$ 1	N = \$14
B = \$ 2	O = \$15
C = \$ 3	P = \$16
D = \$ 4	Q = \$17
E = \$ 5	R = \$18
F = \$ 6	S = \$19
G = \$ 7	T = \$20
H = \$ 8	U = \$21
I = \$ 9	V = \$22
J = \$10	W = \$23
K = \$11	X = \$24
L = \$12	Y = \$25
M = \$13	Z = \$26





## Name Game

K-3

### MATERIALS

pencils  
paper

### REAL-WORLD CONNECTION

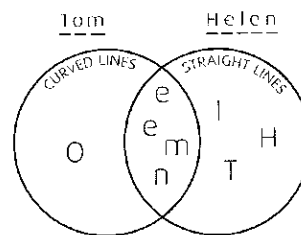
Venn Diagrams are a basic thinking tool for understanding sets within sets (set theory). The logic used in Venn Diagrams is very important in science, advanced mathematics, and the design of computer software.

Venn Diagrams are drawings that show relationships among sets of objects. They are named after an Englishman, John Venn. He lived until 1923 and made these symbolic drawings popular. Although they are usually drawn with circles, other shapes such as squares and triangles can be used. Venn Diagrams are a helpful way of sorting things into categories.

Some letters in the alphabet are written with only straight lines; others are only curved lines. Some letters have both straight and curved lines.

### How

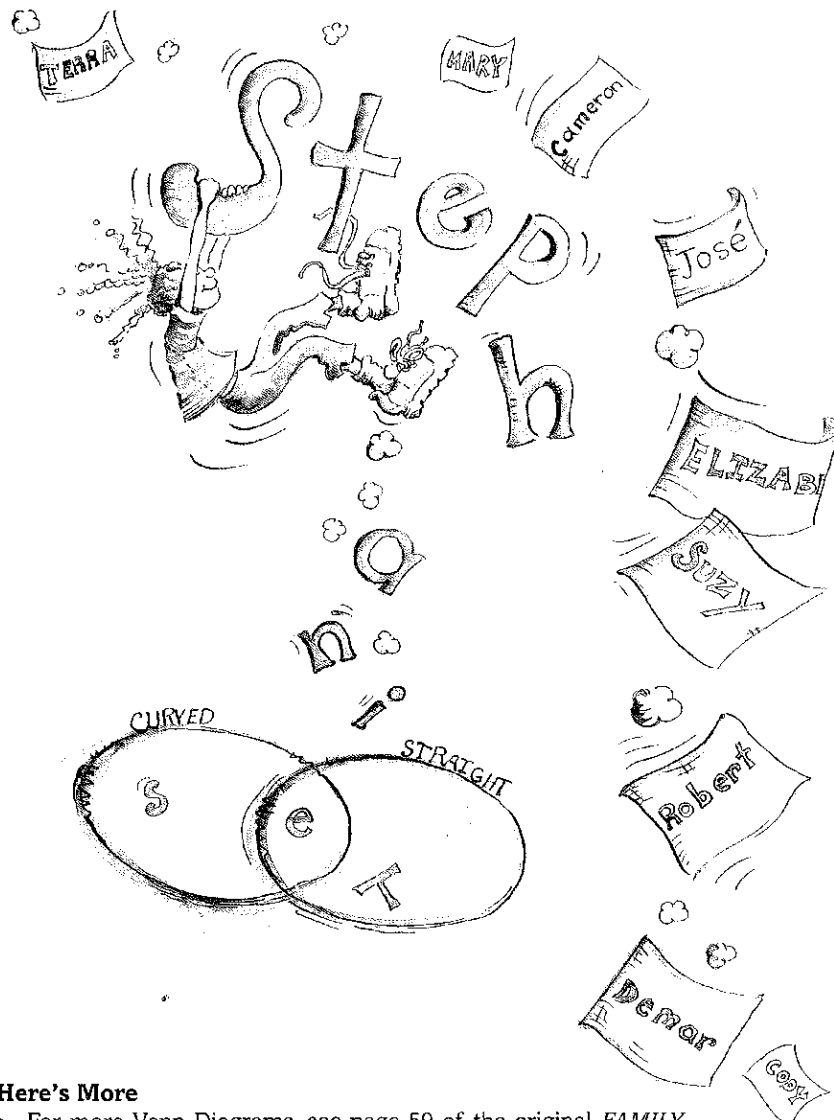
- Working together, print your names on a scratch sheet of paper.
- Compare your name with other family members' names. Does one name have more curved letters than the other?
- How are your names similar? How are they different?
- Write all the letters with only straight lines in the circle at the right.
- Write all the letters with only curved lines in the circle on the left.



- Which are the letters with both curved and straight lines? Where should they go in the Venn Diagram? What else can we say about the letters that share both characteristics?
- How else might we organize the information to show the same results?
- Is there another kind of diagram or graph that would be easier to read or understand? Create it!
- Try this with your best friends' names!



This is about developing a logical way of sorting letters with curved and straight lines by using a Venn Diagram.



**Here's More**

- For more Venn Diagrams, see page 59 of the original *FAMILY MATH* book.

# Palindromes



Grade Level

**TOOLS**

Palindrome chart  
 (see page 216)

Crayons or marking pens  
 of 6 different colors

## Why

To develop accuracy in addition

- ▶ This activity generates an interesting pattern on the hundred chart, and will give your family many hours of highly motivated addition practice. We suggest you and your children also practice using a calculator for at least part of the activity. ◀

## How

- A **palindrome** is a number that reads the same forward and backward such as 33, 868, 6006, or 52825.
- 423 is not a palindrome—BUT with a little addition 423 can be transformed into a palindrome:

$$\begin{array}{r}
 423 \\
 + 324 \\
 \hline
 747 \quad \text{A palindrome!}
 \end{array}$$

- We have written 423 backward and added it.
- We call 423 a 1-step palindrome, because we can turn it into a palindrome in 1 step.
- Some numbers take longer:

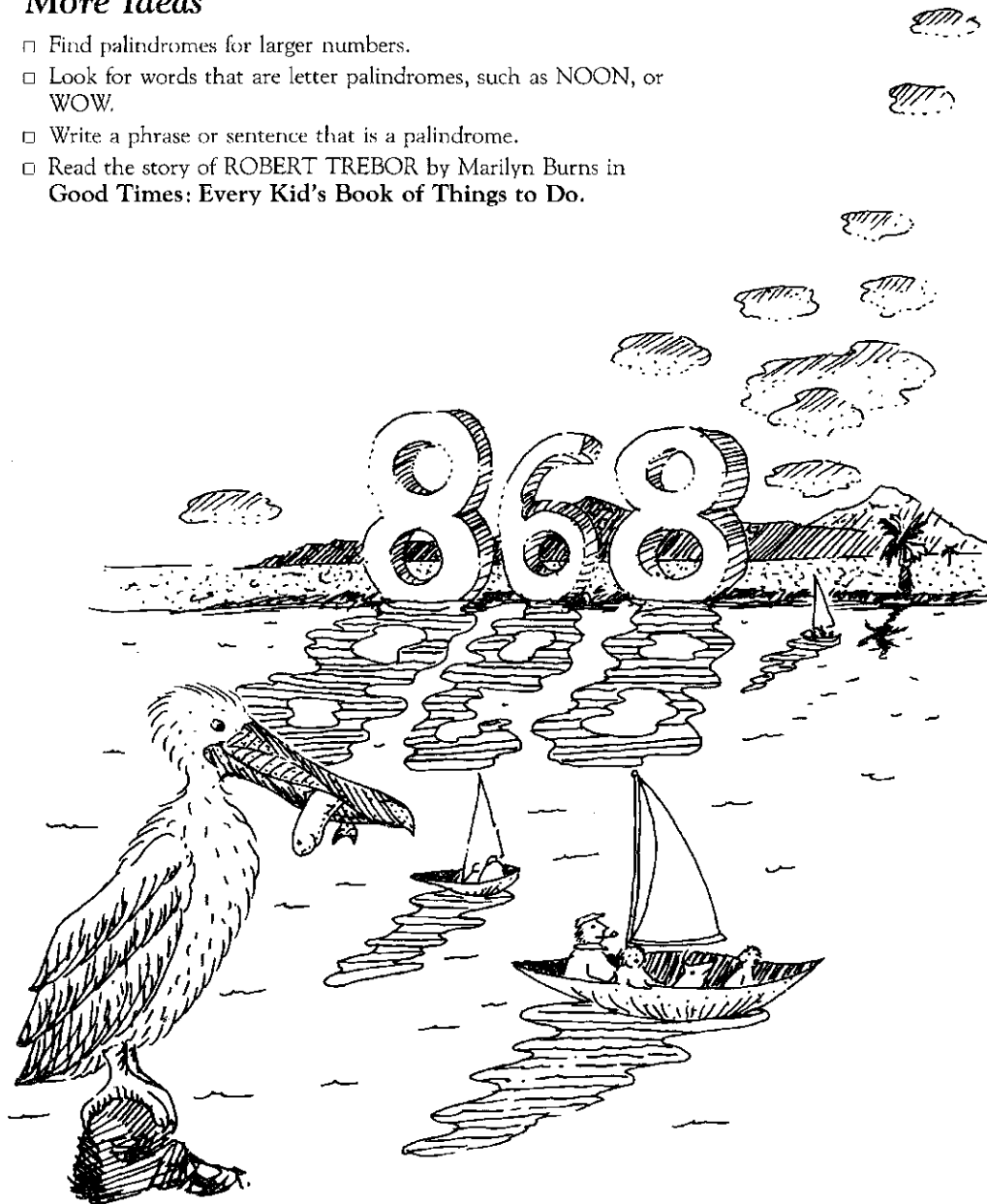
	59	}	59 is a 3-step palindrome
	+ 95		
Step 1	154		
	451		
Step 2	605		
	506		
Step 3	1111		

- Choose some numbers of your own.
- Find out how many steps it takes to make each of your numbers into palindromes.
- With your family, explore the numbers from 0 to 99. Color all of the numbers that are already palindromes one color, the 1-step palindromes another, and so on. Use the chart on page 216.
- What patterns did you find after completing your Palindrome chart?



*More Ideas*

- Find palindromes for larger numbers.
- Look for words that are letter palindromes, such as NOON, or WOW.
- Write a phrase or sentence that is a palindrome.
- Read the story of ROBERT TREBOR by Marilyn Burns in *Good Times: Every Kid's Book of Things to Do*.





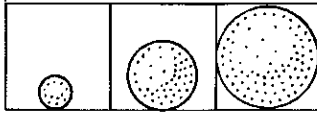
### PALINDROME CHART

Choose a color for each:

- palindrome
- 1 step palindrome
- 2 step palindrome
- 3 step palindrome
- 4 step palindrome
- 5 step palindrome
- 6 step palindrome

0	1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99

## Paying the Price



Grade Level

### Why

To become familiar with the value of coins and to practice making an organized list

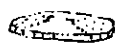





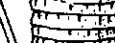

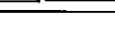
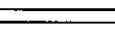
### How

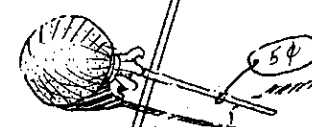
- Help your child find how many different ways you could pay for **each of the items** using pennies, nickels, dimes, and/or quarters.
- For each way, put the coins on a separate row of the board below, then make a record of how many ways there were.
- For example, for a LOLLIPOP that costs five cents, there would be two ways:

### TOOLS

- 50 pennies
- 10 nickels
- 5 dimes
- 2 quarters
- Coin board


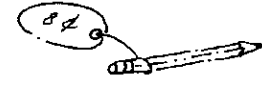







COIN BOARD

50¢ 	25¢ 	10¢ 	5¢  	1¢     
--	--	--	--	---



5¢

HOW MANY WAYS?

 <p>23¢</p> <p>letter _____</p>	 <p>8¢</p> <p>pencil _____</p>	 <p>55¢</p> <p>cone _____</p>
 <p>99¢</p> <p>train _____</p>	 <p>15¢</p> <p>duck _____</p>	 <p>20¢</p> <p>bandage _____</p>
 <p>25¢</p> <p>cake _____</p>	 <p>25¢</p> <p>flower _____</p>	 <p>\$1.00</p> <p>fish _____</p>

ACTIVIDADES DE LOS  
**MATEO Y CIENTINA**



**COIN BOARD**

50¢	25¢	10¢	5¢	1¢
