

# SUMMER Math Worksheets



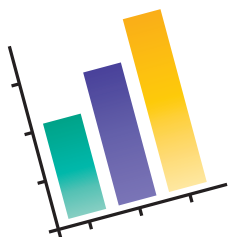
## Grades K-5

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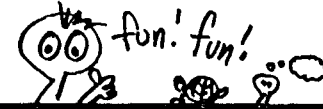
# SUMMER VACATION REVIEW SHEET

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Name \_\_\_\_\_ Date \_\_\_\_\_

## SUMMER VACATION REVIEW SHEET

Over summer vacation try to do every activity suggested here.



1. Find a part-time job. How much did you earn? _____	2. Count the days it rained this summer. _____	3. Make a toothpick sculpture. Count the angles. _____	4. Say the multiplication tables for 6, 7, 8 and 9's. _____	5. Work out this fraction problem. $\frac{3}{4} \div \frac{7}{10} =$ _____	6. Measure your foot with a ruler. _____
7. Divide $3970 \div 22 =$ _____	8. Work out this fraction problem. $2\frac{7}{8} + 3\frac{1}{6} =$ _____	9. How many drawings of objects can you make out of a circle? _____	10. Multiply $1.079 \times .36 =$ _____	11. How many \$5 bills in \$300? _____	12. Count the ants that come and go into an anthill for 10 minutes. _____
13. Multiply $38,090 \times 6,501 =$ _____	14. How many zeros are in the number that is $10^{12}$ ? Write a $10^{12}$ number. _____	15. Measure your bedroom area with a yardstick. _____	16. Work out this fraction problem $14\frac{1}{6} - 7\frac{7}{12} =$ _____	17. Write a letter to someone who is alone. Give them a math problem to solve to send back to you. Check their work. _____	18. DIVIDE $87808 \div 98 =$ _____
19. How many nickels in \$25.30? _____	20. Find examples of rotational symmetry in the fields outdoors. Press between wax paper in heavy books. At the end of summer count, and classify your findings. _____	21. Count the number of hot dogs you ate on the fourth of July. _____	22. Multiply $\frac{15}{24} \times \frac{3}{5} =$ _____	23. On your next trip keep track of the number of miles you travelled. _____	24. How many hours did you spend watching T.V.? What was your average per day for the summer? _____ hours _____ per day

# Answer Key

## SUMMER VACATION REVIEW SHEET

Review of basic operations; practicing  
mathematics during the summer months

*Procedure:* Distribute the worksheet on the last day of school. Instruct the children to select eight problems each month and do one problem a day. Answers should be written in the blanks.

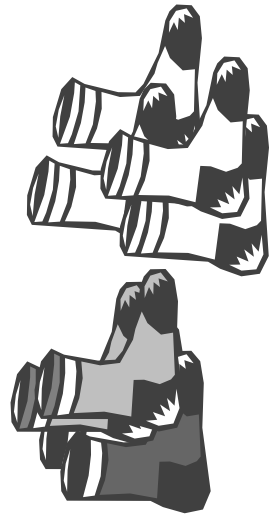
By the end of the summer all 24 problems should be completed and returned to the former teacher before going into the new classroom or make arrangements with the new teacher. This sheet is designed to provide practice with some basic concepts learned during the school year for the intermediate or middle school student. If the problems appear too difficult for a student, adjust them to the learning level of the student.

## ACTIVITY 1

Play “I Spy,” using the terms *top*, *middle*, and *bottom*; *above* and *below*; *before*, *after*, and *between*; and *left* and *right*. One player names an object and challenges the other to name another object in relation to it. For example, you might start by saying, “I spy something *between* the window and the door,” or “I spy something *above* the stove.”

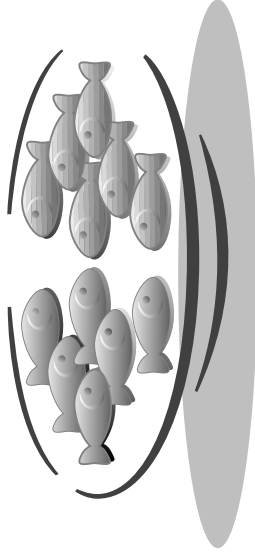
## ACTIVITY 2

Ask your child to help you sort socks after doing laundry. (Use a variety, ten or less of each color or size.) Have him or her match socks by color and by size, and put pairs together. When all the socks are matched, ask your child to count how many pairs of each color there are and how many of each size.



## ACTIVITY 3

During snack time, ask your child to help you divide a graham cracker into two equal parts, or halves. Ask him or her to divide a group of food, such as pretzels, grapes, or cheese cubes, into two equal groups.



## ACTIVITY 4

Hold a “Measurement Scavenger Hunt,” in which children use their own bodies to measure things around the house or yard. Challenge children to find something:

- ◆ as tall as they are
- ◆ as long as their foot
- ◆ the width of both arms stretched wide
- ◆ as long as their pinkie
- ◆ the width of their hand stretched wide

When everyone has finished hunting, ask children to show a few of the objects they found.

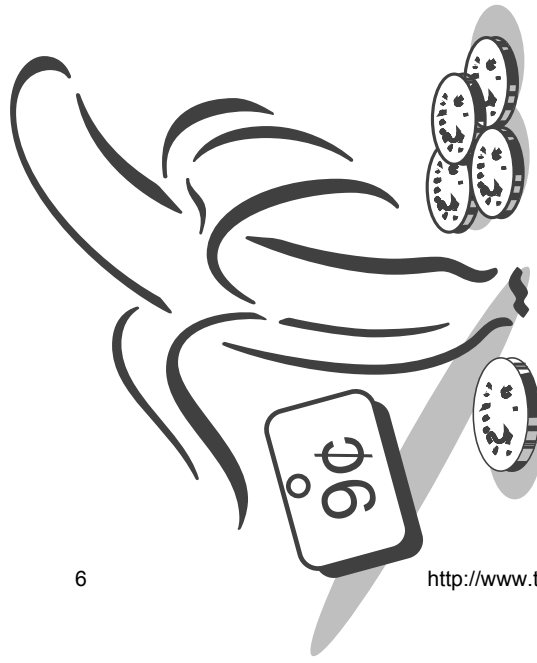


## ACTIVITY 5

Play "Store" with your child. Select and tag a few grocery items with prices from 1¢–19¢. Give your child 1 dime, 2 nickels, and 5 pennies. Take turns counting out the correct coins to buy different items at the store.

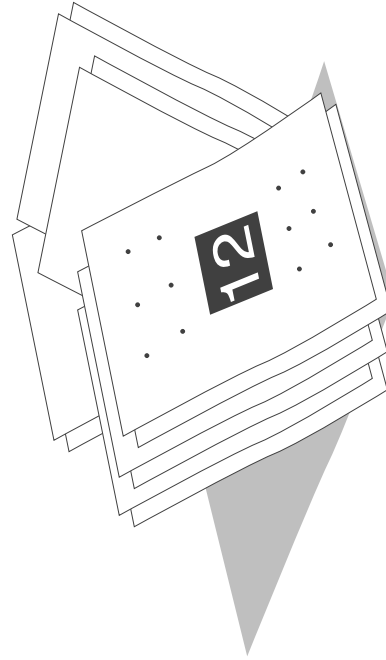
Ask your child:

- ◆ Which item costs the most?
- ◆ Which item costs the least?

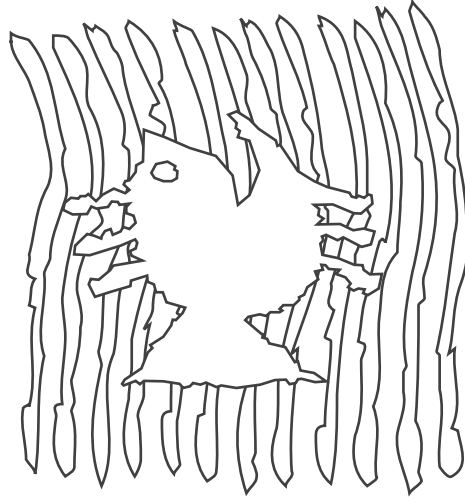


## ACTIVITY 6

On separate pieces of paper, draw pictures to represent groups of 11 to 31 (flowers, dots, Xs, etc.). On small squares of paper, write the corresponding numbers. Challenge your child to match each group to the number that represents it. Then have your child mix up the papers and challenge you to a turn.

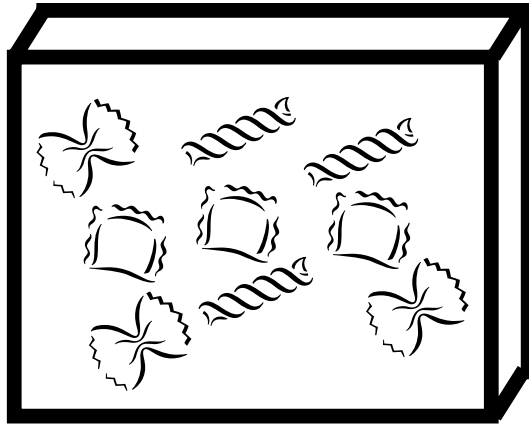


# SUMMER match



## ACTIVITY 1

Use small tube pasta (such as penne or ziti) to practice counting by 2s, 5s, and 10s. Have your child paint the macaroni and then count by 2s, 5s, or 10s as he or she strings it on a cord to make a necklace.



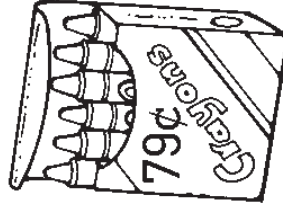
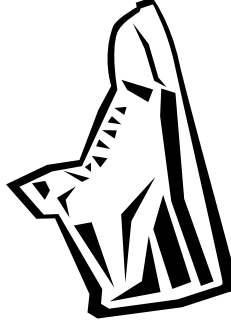
## ACTIVITY 2

Hold a "Measurement Scavenger Hunt" in which children estimate the lengths of objects and then check their guesses with an inch ruler and a centimeter ruler.

Challenge children to find something:

- ◆ less than 4 inches long
- ◆ greater than 10 inches long
- ◆ less than 5 centimeters long
- ◆ greater than 15 centimeters long
- ◆ exactly 1 foot long

When everyone has finished hunting, ask children to show a few of the objects they found.

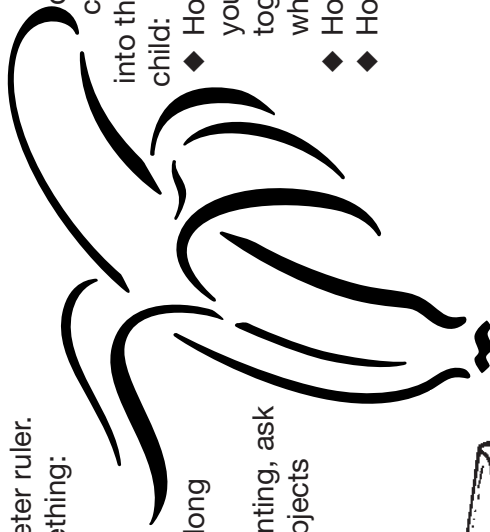


## ACTIVITY 3

During snack time, ask your child to help you divide one graham cracker into halves and another into fourths.

Have him or her divide a slice of cheese or a banana into thirds. Then ask your child:

- ◆ How many halves do you need to put back together to make a whole? [2]
- ◆ How many thirds? [3]
- ◆ How many fourths? [4]



## ACTIVITY 4

Play “Shape Concentration” with your child. Draw or cut out pictures of cereal boxes, balls or oranges, ice-cream cones, cube blocks, and frozen orange juice cans. Attach the pictures to a set of index cards. On other index cards, draw the corresponding geometric solids (rectangular prism, sphere, cone, cube, and cylinder). Combine both sets of index cards and place facedown in rows. Take turns turning over two cards at a time, trying to match each object with its correct geometric solid. The player with the most matched pairs at the end of the game is the winner.

## ACTIVITY 5

Play “Store” with your child.

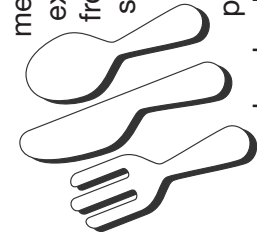
Give your child 1 quarter, 3 dimes, 4 nickels, and 9 pennies. Tag a selection of small toys with prices under 84¢. Take turns counting out the correct coins to buy different items at the store. Ask your child:

- ◆ Which item costs the most?
- ◆ Which item costs the least?



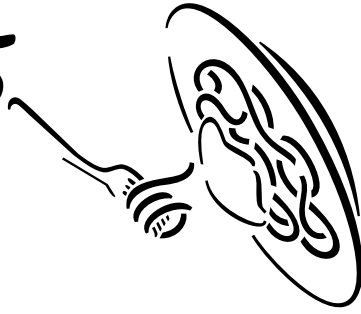
## ACTIVITY 6

Turn mealtime into “subtraction time” by challenging your child to write subtraction sentences to illustrate



mealtime preparations. For example, if 6 rolls are taken from a bag of 12, he or she should write the subtraction sentence  $12 - 6 = 6$ . If all 8 hot dogs from a package are used, he or she should write the subtraction sentence  $8 - 8 = 0$

# Summer math





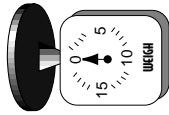
## ACTIVITY 1

Have your child take a survey of family and friends and use the information to create a picture graph. For example, he or she might ask people to name their favorite summer activity or the child might ask people to choose from a specific list of activities, such as swimming, sailing, hiking, playing baseball, or reading. The child should keep a tally of answers, and then make a picture graph to represent the results of the survey.

swimming	⊗	⊗	⊗			
sailing	⊗					
hiking	⊗		⊗			
playing baseball	⊗	⊗	⊗	⊗	⊗	⊗
reading	⊗				⊗	

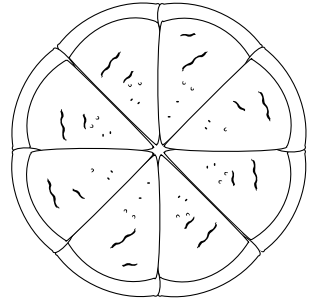
## ACTIVITY 2

Play “More or Less Than?” with your child. Using objects around the house, take turns asking, “Do you think this weighs more or less than X pounds?” Then check your guesses by using a scale. For each correct guess, score one point. The first player to reach 10 points wins. You can also play this game with cup, pint, and quart containers.



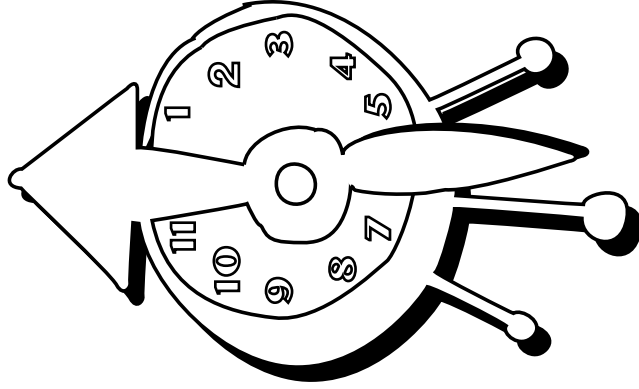
## ACTIVITY 3

When you serve pizza for a meal, have your child help you cut it into eighths. As each piece is put on a plate or taken from the box, challenge your child to tell you what fraction of the pizza is left ( $\frac{7}{8}$ ,  $\frac{6}{8}$ ,  $\frac{5}{8}$ ,  $\frac{1}{2}$ ,  $\frac{1}{4}$ , ...)



## ACTIVITY 4

When you are cooking a meal, ask your child questions about time. Note the time you begin cooking. Tell your child how long it will take to prepare the meal, and ask him or her to tell you what time it will be when you are finished. To alter the activity, note your starting time and tell your child the time you’ll be finished. Ask him or her to determine the time that will elapse.



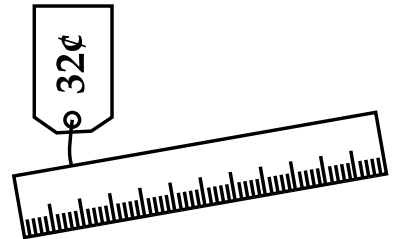
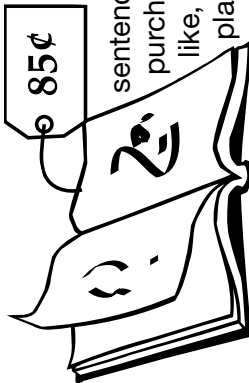
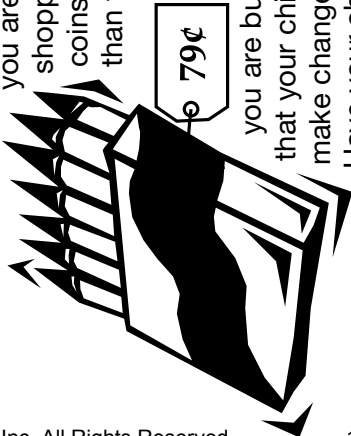
## ACTIVITY 5

Play "Store" with your child. Tag a selection of items with prices under 99¢. Have your child be the storekeeper, while

you are the shopper. Use coins greater than the amount of the items you are buying, so that your child must make change for you. Have your child write

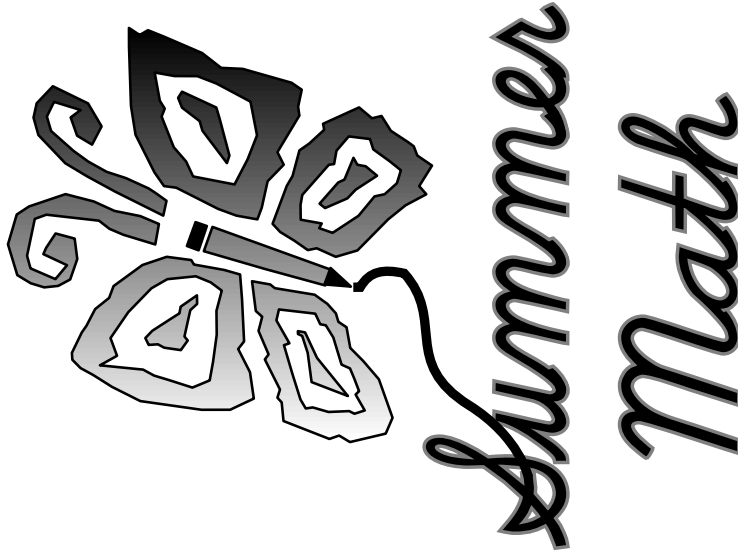
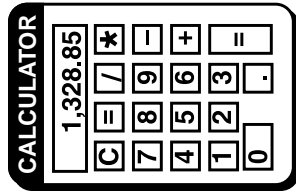
down and solve the subtraction sentence for each purchase. If you like, trade places and let your child do

the "shopping," while you make change.



## ACTIVITY 6

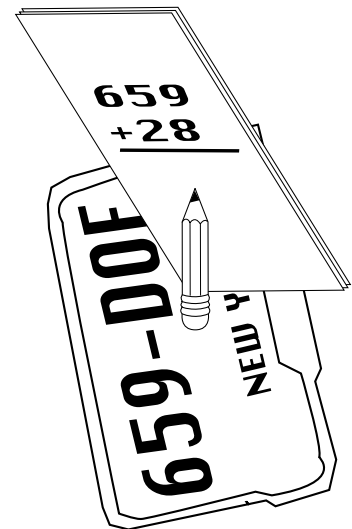
When you sit down to pay bills, have your child help you check your subtraction. (Use only numbers up to 3 digits). Give your child a starting number and then the amount of one bill, such as the electric bill. Have him or her subtract the bill from the starting amount, and check it against your answer. He or she may also want to check the answer by doing the problem on a calculator. Continue with the new starting number and other bills.



# ON THE ROAD AGAIN

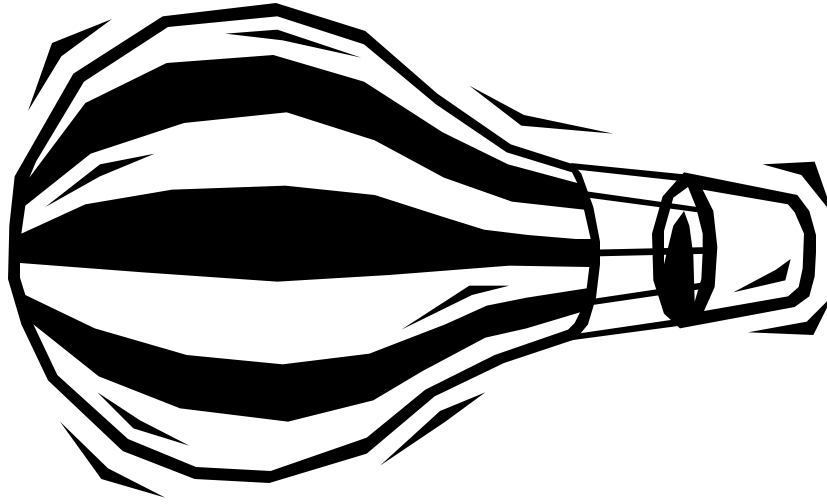
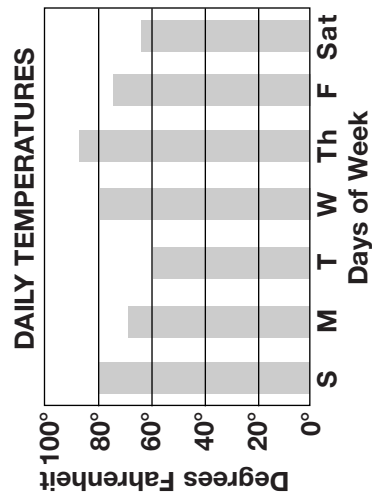
Play this math game when you are traveling by car, train, or bus. The game can be played with individuals or partners.

- ◆ Look for license plates with 2- or 3-digit numbers. Add the numbers together to see who can get the highest total. Score one point. The player with the most points at the end of the trip is the winner.
- ◆ Vary the game by subtracting the two numbers. In this case, the lowest difference would score a point.



# LAZY, HAZY DAYS OF SUMMER

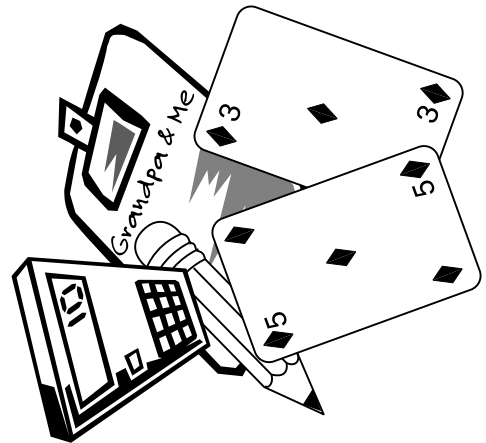
How hot can it get? Keep a record of the daily temperatures for a week or longer. Look in the weather section of your local newspaper or listen to the TV or radio to find the high and low temperatures for the day. Keep a record of the temperatures on a bar graph like the one shown. Ask questions such as, "Was the temperature higher on Monday or Tuesday? How much higher was it?" Your child can practice subtraction by finding the difference between the two temperatures. Ask your child to view the bar graph and make a prediction about the temperature for the next day. Compare predictions to actual readings.



## RAINY DAY BLUES

Play this card game to practice basic multiplication facts with your child on a rainy summer day.

- ◆ Remove the picture cards from a regular deck of cards so that only aces through nines are left. (An ace represents a 1.)
- ◆ Shuffle the deck, and deal a card to each player. Each player places the card on the table.
- ◆ The player who has thrown the higher card then multiplies the two numbers. The answer is written down as a score.
- ◆ When all of the cards have been dealt, use a calculator to add the scores to find each player's total. The player with the highest score wins.

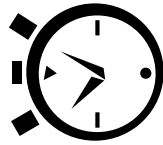


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## BACKYARD OLYMPICS

Organize a family summer Olympics game to help your child, their siblings, cousins, and friends practice measurement skills. Here are some activities you might want to try:

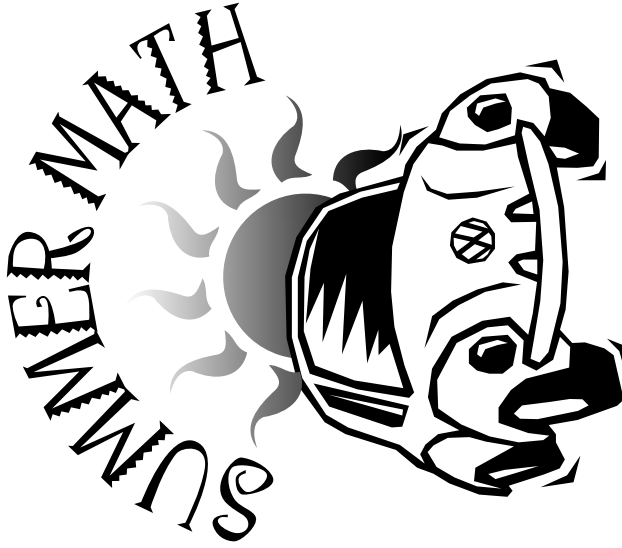
- ◆ Use a watch with a second hand to time a 50-yard dash.
- ◆ Use a measuring tape to find distances in a broad jump, high jump, or softball throw.
- ◆ Use a measuring cup to serve water to thirsty athletes.



## FAIR SHARES

To help your child brush up on division skills, ask division-related questions while you are preparing foods for large numbers of people. Your child can help you create equal portions for each person. Ask your child questions such as:

- ◆ How many hot dogs would each person get if there were 6 people and a package of 18 hot dogs?
- ◆ How many cups of fruit juice would each person get if there were 8 people and 1 gallon of juice? (4 quarts in a gallon, 16 cups in a gallon)
- ◆ How many tortilla chips would each person get if there were 5 people and a bowl of 72 chips?



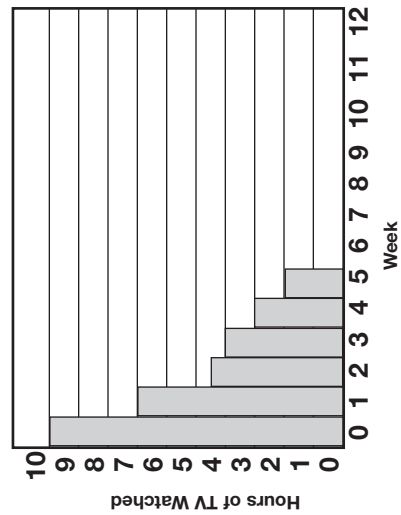
*The following activities can be done over the summer. The activities use the math skills that your child has studied this year in school. Each activity is an opportunity for you and your child to work together to solve problems that encourage the use of these skills.*

- 1 -

# COUCH POTATOES OR NOT?

How much television does your family watch? Let each family member make a guess as to the total numbers of TV hours watched during the summer. Over the course of the summer, keep a log of TV time. Record the number of hours each day that the family watches television. At the end of the week, add up the total hours for each day to get a weekly total. Record the information in a bar graph like the one below. At the end of the summer, add up the weekly totals. Ask, "How would you compare your estimates to the actual times?" (Subtract to find the difference between the two numbers.)

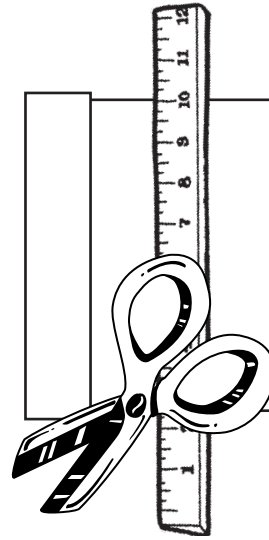
Compare time spent watching TV with time spent doing physical activities.



# LET'S GET ORGANIZED

Have your child measure and cut rectangles from colored construction paper to cover the sides and bottom of a shoe box. Instruct him or her to follow these steps:

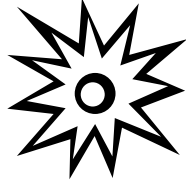
- ◆ Use a ruler to measure the length and width of each face of the box. Measure and draw matching rectangles on pieces of construction paper.
- ◆ Cut out the rectangles and paste them on the box. The box can be used to store items such as art supplies, toys, or collections.



# DOG DAYS OF AUGUST

Here's a card game to play in the shade on a hot summer afternoon.

- ◆ Remove the tens and all of the face cards from a deck of cards so there are only aces through nines in the deck. (An ace is equal to 1.)



- ◆ Shuffle the deck, and deal 4 cards to each player. Players use the 4 cards to create a multiplication problem. For example, the numbers 3, 5, 7, and 1 (ace) can be

used to create problems such as  $371 \times 5$  or  $17 \times 35$ . Record the problems on paper and compare the products.



- ◆ The player who makes a multiplication sentence with the largest product scores a point. Answers can be checked with a calculator.
- ◆ Play until all cards in the deck have been used. The player with the most points wins.
- ◆ Vary the game by creating division problems. The object would be to get the lowest possible quotient.

## DEWEY DECIMALS

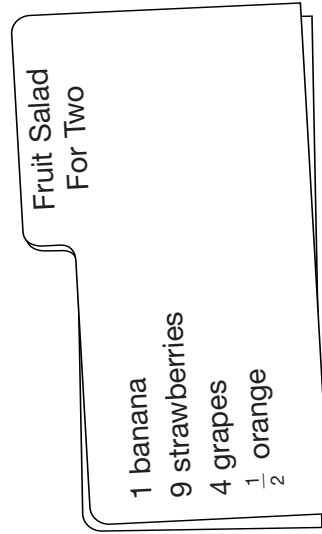
The next time you and your child visit the library, take the opportunity to introduce him or her to the Dewey Decimal System. This system of classification is used to catalog nonfiction books. It is based on ten subject areas numbered from 000–999. Call numbers for books are further subdivided by using decimals.

- ◆ Have your child compare the call numbers on two or more library books. Ask him or her to tell which is the greater number.
- ◆ Have children select 5 books and use their call numbers to put them in order from least to greatest.
- ◆ Challenge children to reshelve the books in their proper places.

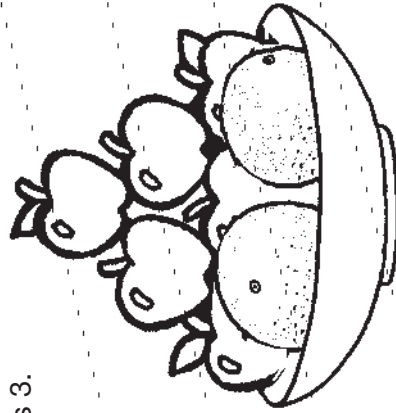


## FRACTIONAL FRUITS

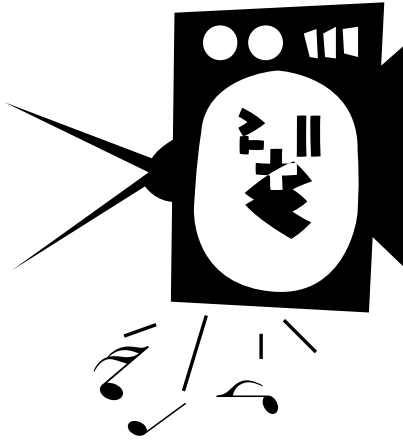
Summer fruits can provide a fun way to review fractions. Give your child this recipe which serves 2.



Ask your child to adapt this recipe to make a fruit salad that serves 1 and then to make a fruit salad that serves 3.



# SUMMER MATH



The following activities can be done over the summer. These activities use the math skills that your child has studied this year in school. Each activity is an opportunity for you and your child to work together to solve problems that encourage the use of these skills.

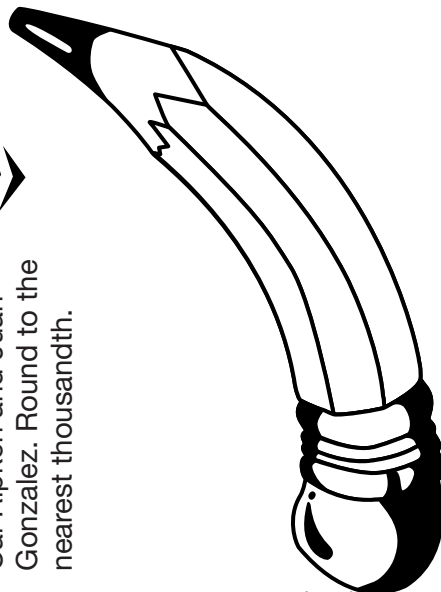
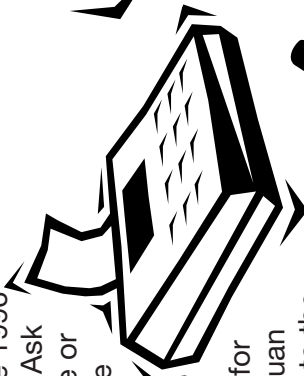


## PLAY BALL

A baseball player's batting average compares a player's times at bat with the number of hits. To compute a batting average, divide the number of hits by the at bats. The result will be a decimal. The higher the decimal, the better the average. Here are some sample batting averages from the 1996 baseball season. Ask your child who he or she thinks has the highest average. Then he or she can compute the batting averages for Cal Ripken and Juan Gonzalez. Round to the nearest thousandth.

### Batting Averages

Player	At Bats	Hits	Average
Ken Griffey, Jr.	545	165	.303
Cal Ripken	640	178	.278
Juan Gonzalez	541	170	.314

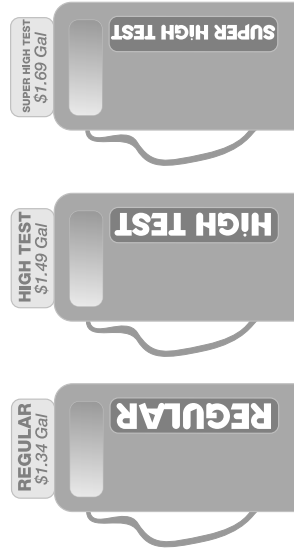


- ◆ Look in the sports section of your newspaper to find the batting averages of your child's favorite baseball player. Keep track of the player's at bats and hits for a week or a month. Compute the batting average using the formula above.

## MILES TO GO

Let your child help plan your next out-of-town trip. Prepare a map that shows the route of your trip.

- ◆ Have your child measure the distance from your home to the destination in either inches or centimeters.
- ◆ He or she can use the map scale to calculate the number of miles you will travel.
- ◆ If you know how many miles per gallon your car gets, let your child figure out the total cost of gas for your trip.
- ◆ You might also challenge your child with this problem: A car gets 20 miles to one gallon of gasoline. If a gallon of gas costs \$1.34 per gallon, how much would it cost to drive 210 miles?



## HOW MUCH PAINT?

Summer time is a good time to paint. Ask your child to help you figure out this painting problem:

- ◆ A pint of paint will cover 50 square feet. If you have a room that is 12 feet long by 9 feet wide by 8 feet tall, how much paint will you need?
- ◆ Have your child help you figure out how many pints of paint you would need to cover your kitchen, living room, or your child's bedroom.

## WHAT ARE THE CHANCES?

Play this game the next time your family is outdoors or taking a car trip. Choose three colors of cars. Predict how often you will see each of the colors out of the next 50 cars that pass. Let everyone make a prediction. Count as cars pass and record a tally mark under the appropriate color. After you have observed 50 cars, find the totals. Write the probability of each color car out of 50, and compare with your predictions. Predict how many times you would see the 3 colors out of 100 cars.

## MATH TRIVIA

During the course of the summer, you and your child can plan a math trivia game.

- ◆ Look for interesting facts about math in newspapers, magazines, and books. When you find a fact, record it in a question-and-answer format on both sides of an index card.
- ◆ Divide the questions into five categories: Computation, Technology, Geometry, Measurement, and Numbers.
- ◆ Take turns asking and answering the math questions with your child. Award a prize for every correct answer.



# SUMMER MATH



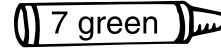
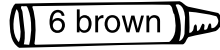
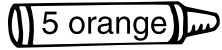
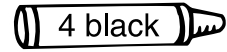
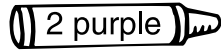
*The following activities can be done over the summer. These activities use the math skills that your child has studied this year in school. Each activity is an opportunity for you and your child to work together to solve problems that encourage the use of these skills.*



# Find the Animals

Where are the animals hiding?

Color by number to find them.



# SUMMER VACATIONS

Name \_\_\_\_\_ Date \_\_\_\_\_

## SUMMER VACATIONS



1. Find your state. If it's not on the map draw it in.
2. Use a red pencil and make a line from your city to the places you will travel to this summer.
3. Label the places.

Answer these questions about your planned vacation.

If you are going to Camp, do this.

- 1) How many miles will you travel? \_\_\_\_\_
- 2) How much will gas cost? \_\_\_\_\_
- 3) How much will meals cost per day? \_\_\_\_\_
- 4) How much will motels cost per day? \_\_\_\_\_
- 5) What will you spend per day? \_\_\_\_\_
- 6) How much money will you need for the entire trip? \_\_\_\_\_

- 1) How far is it to Camp? \_\_\_\_\_
- 2) How much does it cost? \_\_\_\_\_
- 3) What is the average cost per day? \_\_\_\_\_

# Answer Key

## SUMMER VACATIONS

Problem-solving and data-collecting

**Answer:** Ask children to plan a vacation to a place of their choice. Tell them that they will be traveling by car, so they will need to find out how many miles they will be going, how much gas costs, and how many miles per gallon the car gets. (They can pick the car of their choice for this vacation!) Students will also need to find out how much meals and motels will cost.

The worksheet can be done by figuring out the details on a scratch sheet and filling in just the answers directly on the sheet.

In the event a child cannot get the information needed to complete this worksheet place the following estimates on the board and use this information as the source for figuring out the problems.

gas	\$1 per gallon
meals	\$15 per person per day
motels	\$30 for a double per night



NAME \_\_\_\_\_

### Ice Cream—Yummy!

**Directions:**

You are working on the ice cream truck this summer. Use your arithmetic skills to help the customers below.

<b>The Tasty Iceman</b>	
Lemon ice	25 cents per scoop
Ice cream bars	75 cents each
Chocolate-covered bananas	50 cents each
Milkshakes	90 cents each
Banana splits	30 cents per scoop
Fudgebars	50 cents each
Frozen pops	30 cents each
Lemonade	60 cents a cup

**How much will it cost?**

1. I'd like two scoops of lemon ice in a dish and a cup of lemonade. \_\_\_\_\_
2. I want two milkshakes and one frozen pop. \_\_\_\_\_
3. Could I have a chocolate-covered banana and two ice cream bars? \_\_\_\_\_
4. Ummmmm. I'll take a banana split with three scoops. \_\_\_\_\_
5. My turn? Okay, I'll have a milkshake, a fudgebar, and one scoop of lemon ice. \_\_\_\_\_

**Bonus:**

**Bonus:**

6. What can I get for 50 cents? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# What Will Your Child Learn in Math?



## Kindergarten

- Trace basic shapes
- Recognize groups of one, two, three, four, and five objects
- Count to ten
- Sort similar objects by color, size, and shape

## First Grade

- Count to 100 by ones, twos, fives, and tens.
- Write the numerals 1 to 100.
- Sound out simple words.
- Master addition and subtraction facts up to 12.
- Understand place value of ones and tens.
- Understand concepts of greater and less than.

## Second Grade

- Add and subtract any 2-digit number.
- Handle place value concepts for 3-digit whole numbers.
- Identify time to include half-hour and 5-minute intervals.
- Identify the value of pennies, nickels, dimes, quarters, half-dollars, and dollars.

## Third Grade

- Add and subtract any numbers from 100–1,000.
- Multiply numbers to  $9 \times 9$  and be able to determine each related division fact.
- Measure using standard and metric units.

## Fourth Grade

- Divide by one- and two-digit numbers.
- Use calculators and computers.
- Add and subtract fractions.

## Fifth Grade

- Add, subtract, multiply, and divide fractions and decimals.
- Recognize relationships between fractions, decimals, and percents.
- Determine the perimeter of polygons and the area of squares and rectangles.
- Use mathematics in the study of science.

