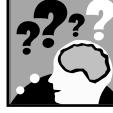




Nifty Numbers

Establish a rhythm through alternating claps and pats on the thighs. Use the following “rap” to count by two’s, five’s, and ten’s: Ringo, Rango, Tingo, Tango, Dinosaurs have shoes. Ringo, Rango, Tingo, Tango, I can count by twos. Two, four, six, eight... Repeat for “hives/fives” and “pens/tens.”

(1.02)



Brain Teaser

Millie is making a string of beads to wear with her new dress. She is putting yellow beads, orange beads, and green beads on the string. She likes the pattern she has made. This is what she put on the string: yellow, orange, yellow, green, yellow, orange, yellow, green, yellow, orange, yellow, green, yellow, orange, green, yellow, orange, yellow, green, yellow, orange, green, yellow. She realizes she made a mistake! Can you find the mistake?

(5.03)



Look And See

Give students one of each of the following shapes: hexagon, trapezoid, and parallelogram. Describe each shape and have students hold it up and repeat the name. Ask a variety of “show me ___” questions. Children will hold up the shape and name it.

(3.01)



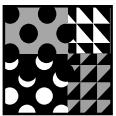
Let’s Explore

Question - What is our favorite month of the year?

Activity - Make a graph of “Our Favorite Month of the Year.” Label 12 plastic cups with a month of the year. Ask students to instruct you on how to put them into the correct order. Students put a straw in the cup labeled with their favorite month. Count and bundle into tens if necessary. Write the total number for that cup under the month’s name. Have them record the information onto a tally graph.

After completing the class graph, ask specific questions about the graph such as: which has the most, the least, fewer than ____, how many more one response has over another, the total number of two or three categories combined .

(4.01)



Patterns Galore

Take a walk around the school and grounds calling attention to patterns found in brick buildings, fences, sidewalks, or floors. Encourage children to find other patterns in and out of the classroom. Record examples of patterns in math journals. Look for picture books of patterns in the environment, or take pictures of patterns found at school.

(5.03)



Writing About Math

After completing a class graph, ask students to write three things about the graph in their journals.

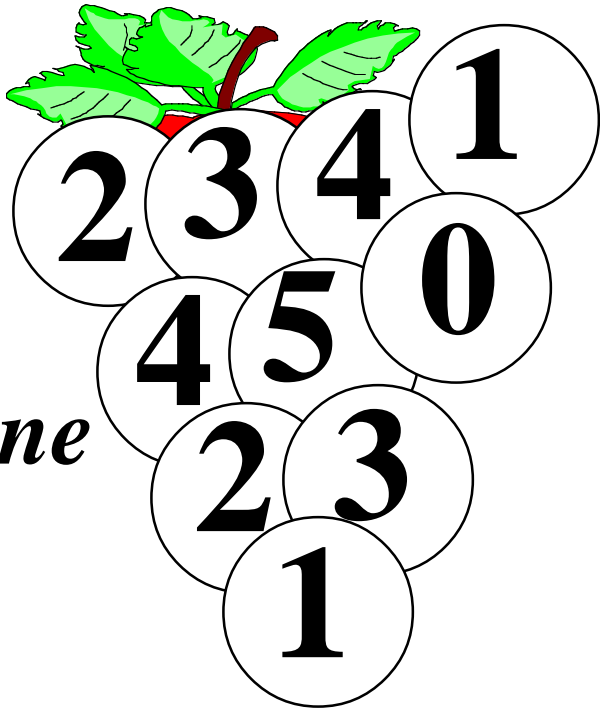
(4.01)

A Bunch of Fun

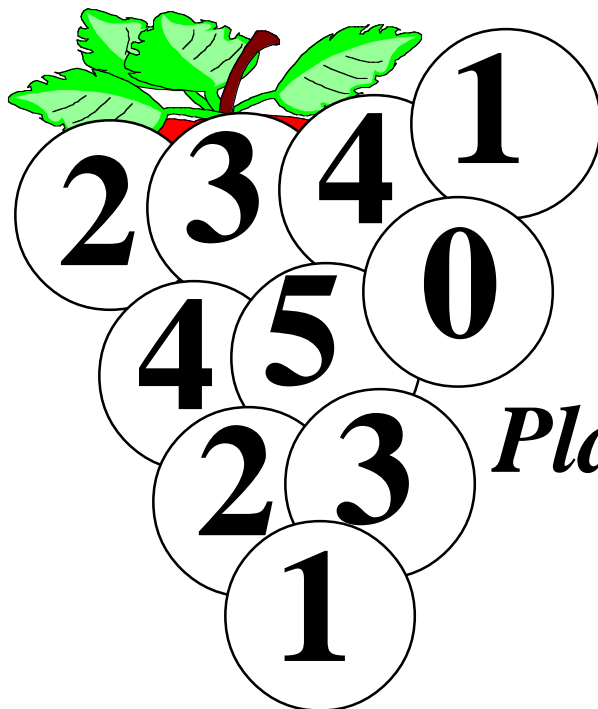
Materials: Game board, two number cubes, Unifix cubes.

Number of players: Two

Directions: Roll the number cubes and find the difference in the two numbers. Cover the difference on a grape on your bunch. Continue play until someone has covered all of his or her grapes. This person is the winner.



Player One



Player Two



Powerful

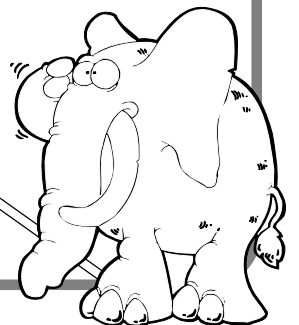
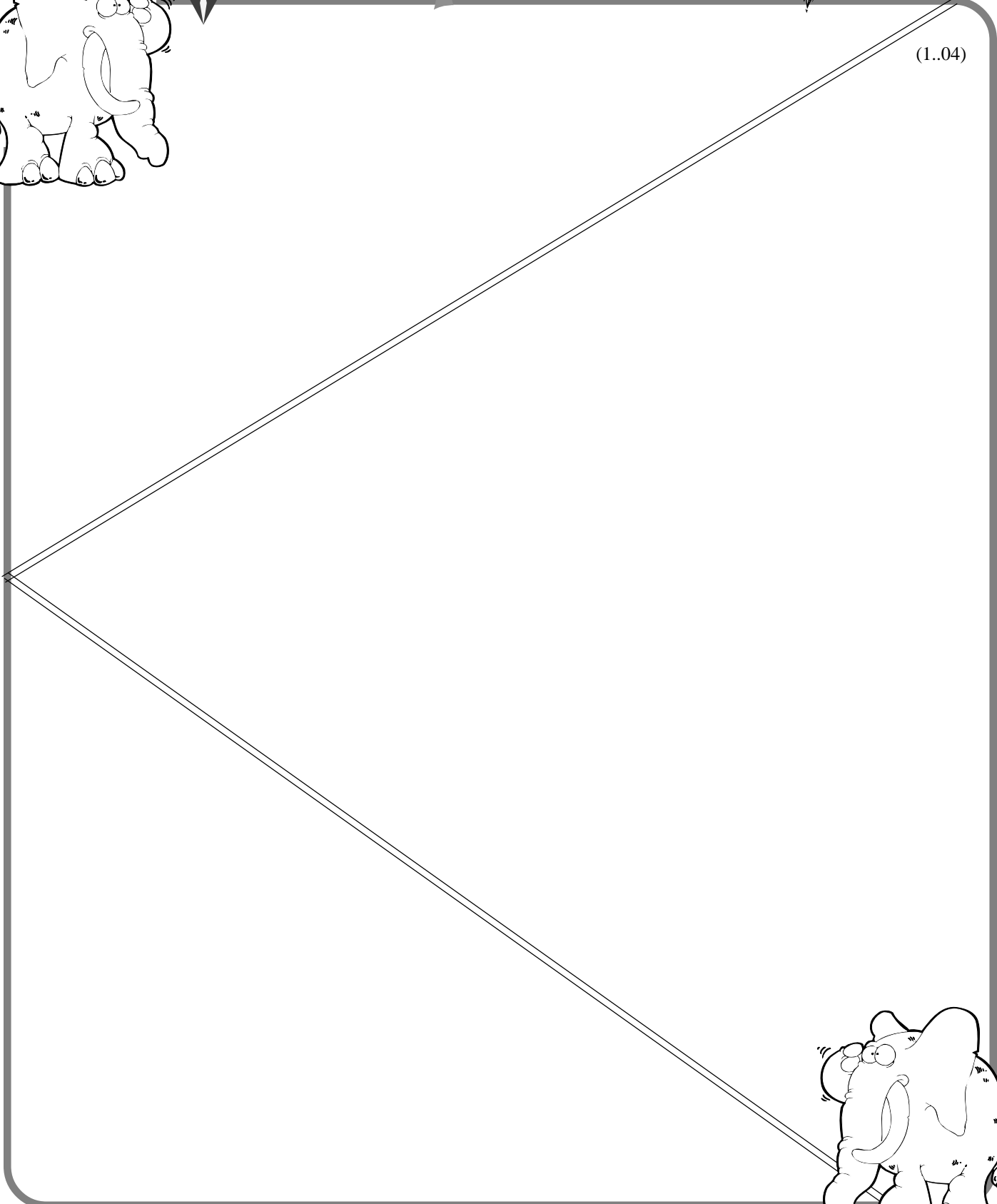


Grade 1

WEEK
13



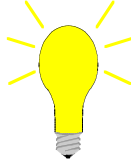
(1..04)



To the Teacher ..

Grade 1

WEEK
1 3



It is important to note how a child feels about mathematics and about his or her ability to do mathematics along with assessing understanding of concepts and mastery of skills. Occasionally ask your students to tell you how they feel about what they did in math today. Watch their body language as they work on math individually and in groups. Building confidence is critical for academic success.

🍏 When interviewing a student, try to get a picture of what the child is thinking rather than focusing on only a correct answer. Allow the crucial wait time that some students need to think through their answers. Now is the time to reflect on the class as a whole. In what mathematical areas did your children excel? Write yourself notes on good ideas to remember.

🍏 Keep a notebook or special section of your plan book open for jotting down notes after your lessons. Successful assessment questions and management ideas will be helpful with future lessons and for next year.

🍏 When writing your lesson plans, write key assessment questions on post-it notes. Attach the notes to your clipboard with your assessments recording sheet or in your textbook's Teacher's Edition. Drill and practice in a game format seems to be more successful than worksheets in helping children memorize their number facts.

Mental Math

1. $7 - 2 =$
2. What comes next? 16, 17, 18. _____.
3. The number before 19.
4. How many shoes in three pairs?
5. How many corners on a square?
6. What number is between 14 and 16?
7. What number plus four equals nine?
8. Which is less, 26 or 16?

Powerful Potpourri

Assess ability to model concepts of addition to ten in small groups. Use the Powerful Potpourri mat. Direct children to place counters (any number from 1 to 10) on two of the sections of the mat. They then move all counters to the empty space as they say aloud, the number sentence (i.e., $2 + 7 = 9$).



Nifty Numbers

Play Concentration matching numerals to number words. See Blackline Master.

Variation: Sets to number words; match facts to number words.

(1.01a)



Brain Teaser

Max likes to stamp patterns. He has a heart-shaped stamp and a square-shaped stamp. Here is one of Max's patterns: heart, heart, square, heart, heart, square, heart, square, heart. Oops!

Max made a mistake

Help him find his mistake.



(5.03)



Look And See

Prepare Shape-O cards by randomly placing circles, squares, triangles and rectangles on card (see Blackline Master). Make each card different. Pull a shape from a bag and call its name. Students can cover any one of the corresponding shapes on their cards. The first one to cover five in a row or diagonally calls out "SHAPE-O."



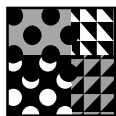
Let's Explore

Question - What is your favorite circus animal?

Activity - Discuss the circus and animals that can be seen at the circus. Display pictures of circus animals and have students describe the animals' attributes. Ask, "What is your favorite circus animal?" Have students place their names under their favorite animal.

Discussion - What can you tell me about the chart? Is there any animal that is not very popular? How many more people like tigers than elephants? What do we know when we compare our graph with the one from another first grade class?

(4.01)



Patterns Galore

On the overhead, draw, or use manipulatives to display a repeating pattern containing an error. A student will come to the overhead and correct the error. After a few examples, have students record a corrected pattern in their math journals.

(5.03)



Writing About Math

Pretend you are meeting a new student at the front door of the school. How would you tell her/him to get to your classroom? Write the directions. Remind students to use directional/positional words (left, right, beside) and specific things to look for (landmarks) beginning at the front door.

(Spatial tasks)

Bear Races

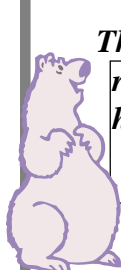


Materials: One colored marker for each player, one number cube, gameboard.

Number of Players: Two or three

Directions: Roll the cube. Subtract that number from seven and move your marker that many spaces.

The race begins



<i>right here</i>		
		Go back 2
Great! Roll again.		
		Detour! Lose a turn
A prize! Move ahead 3!		
		Wait here 1 turn

Good work! Go ahead 2	
Delay! Lose 1 turn	
Lucky! Roll again!	



	Time out. Go back 3
	Too fast! Go back 2
	Mud slide! Go back 3
	Oops! Go back 1



If you get here first, you are the winner!!

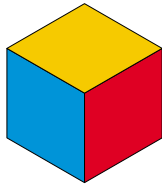
Lose a turn!
Delay Go back 1

(1.04)

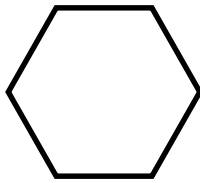
(3.03)

Name _____

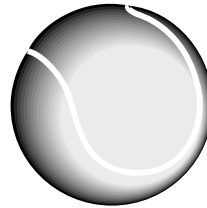
Directions: Use the shapes below to answer the questions. Read each clue carefully!



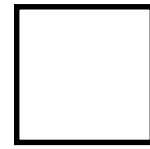
cube



hexagon



sphere



square

1. I am “curvey”.
I can roll.
Who am I?

2. I have equal sides.
I have no curves.
Who am I?

3. I have 8 corners.
I have faces.
Who am I?

4. I have four sides.
I have four corners.
Who am I?

5. I have six sides.
I have six corners.
Who am I?

6. I have six faces.
I have corners.
Who am I?



To the Teacher

Grade 1

WEEK
1 4



Mathematics is all around us. We use it every day in personal living and in all of our school work. When we read graphs in social studies, gather and use data in science investigations, or count in music or physical education, we are using mathematics. We make connections in our math classes also; for example, measurement skills help us in solving many geometry problems and classification skills help us in organizing data. We use computation in many different situations. You will become a stronger mathematics student by making connections. Students who recognize the value of mathematics are well on their way to becoming mathematically powerful citizens. Valuing mathematics means that we appreciate the richness, power, and usefulness of mathematics. Without math there would be no roads or bridges, computers or movies, banks or fast food restaurants. How can you become mathematically powerful?

🍏 The greatest emphasis in assessment should be placed on student growth and progress. Children mature at different rates and all will achieve in mathematics but will not be at the same place at the same time.

🍏 The load of the classroom teacher is lightened anytime two or more math objectives can be taught and assessed in one lesson. This does not mean skimming over skills or changing objectives every few minutes. It means integrating mathematics within mathematics.

🍏 Students should clearly understand the lesson objectives or the goals of their investigation.

Mental Math

1. The sum of $5 + 3$.
2. The number of legs on three tigers.
3. What comes next? 15, 20, 25, ____.
4. The number of wheels on four bicycles.
5. What numbers come before and after 11?
6. What number plus seven equals ten?
7. I have two pennies in my pocket and five pennies in my hand. How many pennies do I have?
8. What is three less than eight?

Powerful Potpourri

As a follow-up activity to this week's Powerful Potpourri, have students write their own riddles. After they write a riddle, trade with a neighbor and try to solve!



Nifty Numbers

Provide a set of number tiles or cards 0-9. Have the child draw three cards and use two of the digits to make the smallest number possible. Record the number. Then use two of the three digits to make and record the greatest number possible. Repeat the process three or four more times.

(1.01e)



Brain Teaser

Some squirrels were playing in the yard. When I opened the door, eight squirrels ran up the tree. Three squirrels were still in the yard. How many squirrels were in the yard before I opened the door?



(1.04)



Look And See

Play “Shape-O” according to directions given in Week 14. This time, prepare the cards to include the hexagon, trapezoid, and parallelogram.

(3.01)

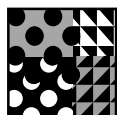


Let's Explore

Using the calendar, ask questions such as:

1. What is the date of the third Wednesday in this month?
2. What day of the week is the 26th of this month?
3. Does this month have more or less days than last month?
4. If January is the first month of the year, what is this April? October?
5. What day of the week was the last day of LAST month?

(2.02b)



Patterns Galore

Have two students come to the front of the room. Classmates will brainstorm a list of ways the two are alike and different as the teacher records their observations. This could be repeated using objects such as: crayon/pencil, two geometric shapes, pictures of two animals. A Venn diagram could be used instead of a list.

(5.01)



Writing About Math

Write a story, using ordinal numbers, to describe what you did yesterday.

(1.04)

Big Cheese 2

Draw Cards

Materials: Gameboard, four sets of cards numbered 15 to 30, or any series of numbers appropriate for the group

Numbers of Players: Two - four

Directions: Each child draws a card and turns it over. The player with the highest number takes all cards. If there is a tie, those players turn over another card and the person with the highest number takes all the cards. After all cards have been drawn, the winner is the player with the most cards.



(1.01d)



Name _____

Directions: Read the number in each block. Say that number and count on the number of dots. Write your new number. The first one is done for you.

four 6	••	two	•	five	•••
one	•	seven	•••	zero	••

Directions: Read the number in each block. Say that number and count backward the number of dots. Write your new number.

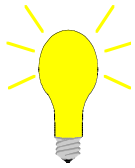
six	•••	nine	••	five	•
eight	••	ten	•	three	•••

(1.01a)

To the Teacher ..

Grade 1

WEEK
15



Sometimes the hardest part of solving a problem is just getting started. Having some steps to follow may help you.

1. Understand the information in the problem and what you are trying to find out.
2. Try a strategy you think might help you solve the problem.
3. Find the solution using that strategy or try another way until you solve the problem.
4. Check back to make certain your answer makes sense.

Confidence means that you believe in yourself. You can become a more confident problem solver by learning to use a variety of strategies. If your first idea does not work, don't give up just try another way! Working with a buddy also helps. You need help to remember that there is usually more than one way to solve a problem and that practice always helps us learn.

Frequently in mathematics we focus on "What is the answer?" questions. We need to stress, "Why do you think that?" and "How do you know?"

Encouraging students to talk about and write about what they know helps them clarify their thinking and gives other children new ideas.

Mental Math

1. The number after 29.
2. One ten and nine ones.
3. The difference of $10 - 2$
4. The sum of $4 + 5$
5. What number minus five equals three?
6. What numbers come before and after 24?
7. What was yesterday's date?
8. The number of wheels on two wagons.

Powerful Potpourri

Counting on and counting back are strategies for finding sums and differences. This week's Powerful Potpourri uses these skills coupled with reading number words.



Nifty Numbers

Prepare sets of cards numbered 10, 20, 30, . . . 100. See Blackline Masters. Children work in pairs to place the numbers in order. One child turns away while the other turns four cards face down. The first child names the number of each card that is face down.

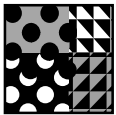
(1.02)



Look And See

Place a 3-d geometric shape on top of an incline and observe how it travels down the ramp. Try each shape two or three times, changing the angle of the incline. Complete a chart by indicating “yes” or “no” as to whether or not each shape could “slide or roll.” Now place one shape on top of another to see if they will stack. Complete a chart by indicating “yes” or “no” as to whether the shape can stack or not stack

(5.01)



Patterns Galore

Give pairs of students baggies containing objects to sort (attribute blocks, pattern blocks, beads, buttons, keys, beans). One student will sort the objects into two groups and challenge the other to guess the sorting rule. The child who sorted the objects will explain his rule then sort them another way. After the first child has had two or three turns, rotate the baggies. The second student then gets a turn.

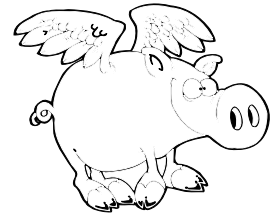
(5.01)



Brain Teaser

Guess my number. My number is:

1. Between 9 and 29
2. It is 6 more than a half dozen
3. It is the difference between 20 and 8
4. What's my number?



(1.04)



Let's Explore

Students are given a small piece of paper on which they write their first name and the number of letters in their first name. Generate a line plot according to the number of letters in their names.

(4.01)



Writing About Math

In journals, students will write three observations about the line plot in “Let’s Explore.”

(4.01)

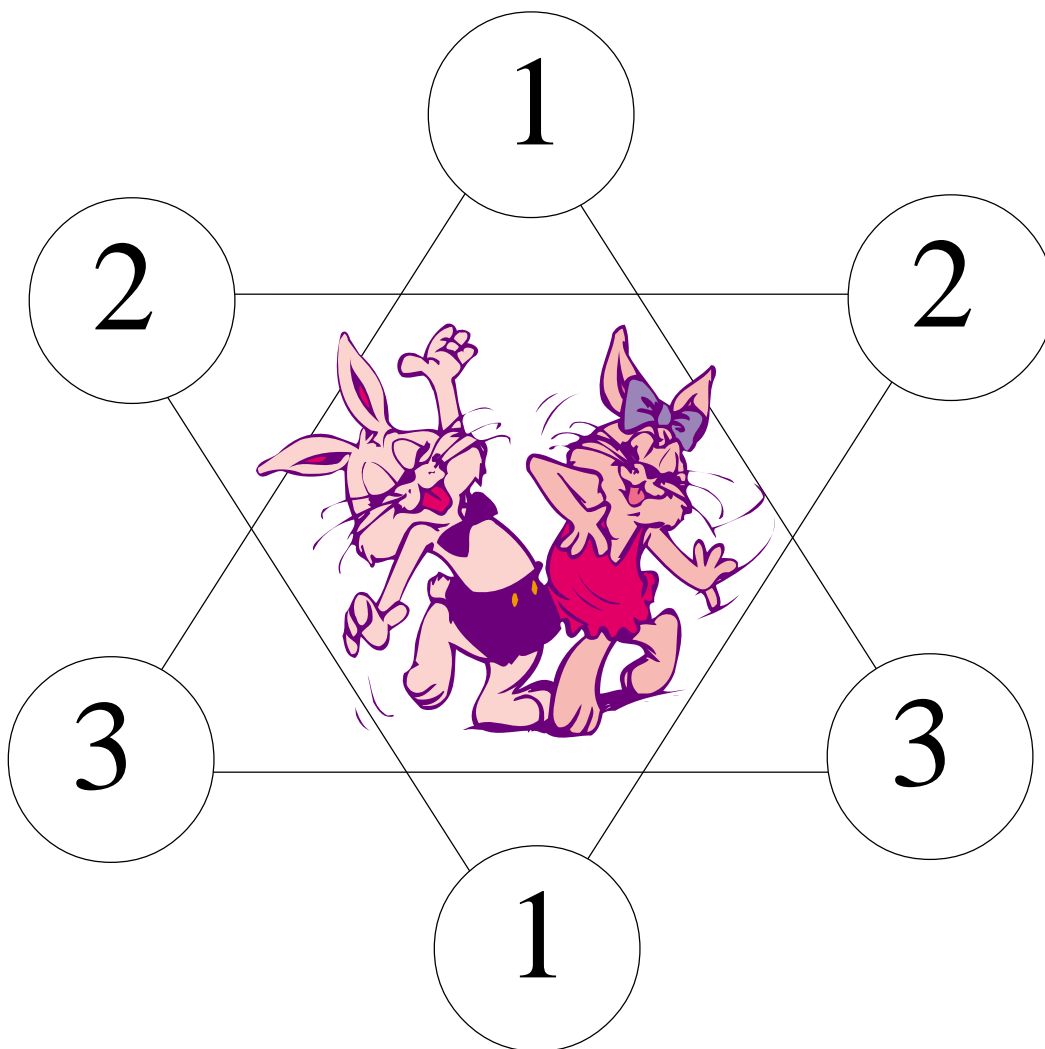
Slip 'n Slide Addition

Materials: Gameboard, one marker

Number of Players: Two

Directions:

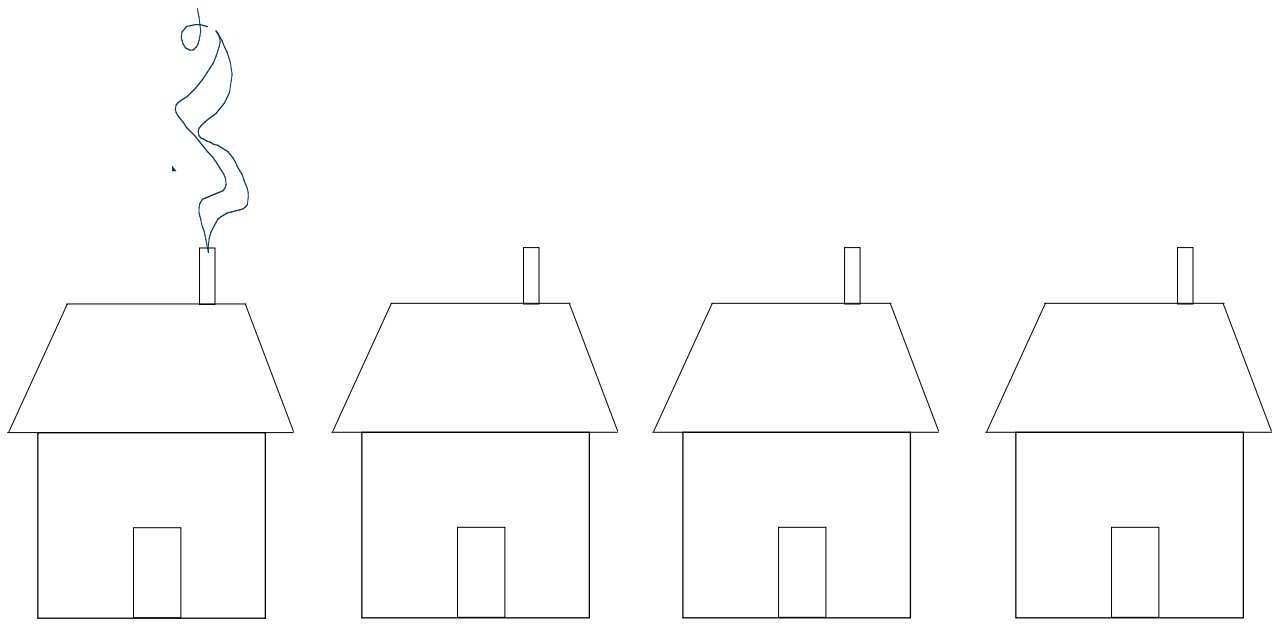
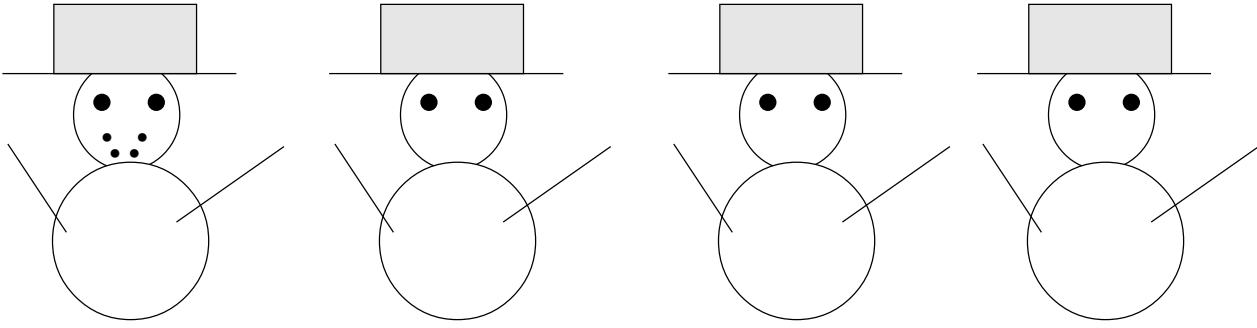
1. The goal is to reach the sum of 17. Use only one marker.
2. The first player places the marker on one of the circles and says that number.
3. The second player slides the marker along one of the lines to another circle and says the sum of the previous number and the new one.
4. The first player then slides the marker on a line to a new circle and adds it to the sum.
5. Play continues like this, moving alternately and keeping a running total.
6. Whoever gets to the total 17 wins. If a player goes over 17, the player loses.



(1.04)

Name _____

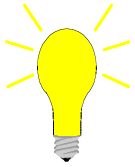
Directions: Look at the first shape in each row. Make the next shape look like the first one. Add one attribute to that shape. Continue copying the last shape and adding one more attribute each time until you complete the row.



To the Teacher

Grade 1

WEEK
16



Closely observe the children as they work in groups. Are all children contributing? What strategies are being suggested by whom? Offer help only when the group is really stumped or having a problem that they can't handle. Encourage children to write or tell as specifically as possible about what their group did. What they say is more important than how they say it.

Use the class activities to assess the problem-solving abilities of your students. How do they approach the problems? Are they initiators or observers?

The discussion time is an essential part of this process both for the student's understanding of what they have done and for your assessment of their problem-solving skills, mathematical concepts, and number sense.

After the students work in groups with a class activity, ask the students independently to write a story problem. This example of student work may be added to the portfolio and used to assess both mathematics and unassisted writing.

During individual student conferences, consider taping the student. Listen to the tape to help with assessment notes or add to the portfolio.

Interviews do not have to be formally scheduled. You can stop beside a student's desk for two minutes and gather a great deal of information.

Mental Math

1. What comes next? 50, 52, 54, ____
2. The sum of $40 + 1$.
3. The number before 45.
4. E-i-g-h-t minus t-w-o
5. The number of sides on two squares.
6. What number minus two equals seven?
7. I had ten dimes. I spent four dimes on ice cream. How many dimes do I have left?
8. What number is nine tens and nine ones?

Powerful Potpourri

Directions for the Powerful Potpourri are on the student worksheet. This assessment would be a helpful addition to student portfolios.