Nifty Numbers

Play Concentration with dominoes. See Blackline Master. Place dominoes face down in straight rows. Turn up two at a time. If the sum of the dots is equal, the student keeps the dominoes and takes another turn. If the sums are not equal, the dominoes are turned back over and the next player takes his turn. The one with the most dominoes at the end is the winner.

(1.03)

Brain Teaser

Use 15 unifix cubes. Divide them equally into three groups. How many cubes are in each group?

Divide 14 cubes in two groups. How many in each group?

Divide 20 cubes into four groups. How many in each group?

(1.04)

Look And See

Have your class collect a variety of 3-d objects Sort objects into two groups. Have students guess sorting rule, and discuss why each shape fits into that group. Encourage the use of correct geometric terms.
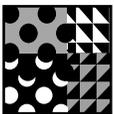
(5.01)

Let's Explore

Make a time line to record daily events. Each student may make one or the class can create a large timeline.

1.   Set a timer to ring every hour. Ask students to write a sentence about what they are doing at that time. Discuss how to record this on the timeline.

2.   Display the information on a timeline and invite students to illustrate.

(2.02a)

Patterns Galore

Create a pattern using the following shapes. Use one or two of the shapes more than once in your pattern unit.

■   ♥   ●

How will this pattern sound using claps, snaps and stomps?

(5.03)

Writing About Math

Write about your favorite time of day. Use a clock stamp to record the time of the activity.

(2.02a)

Four's A Winner

Materials: One gameboard, two paperclips,
2 different colored game markers
Numbers of Players: 2

Directions: Player one places the two paper clips on numbers of his choice at the bottom of the page, then places his marker on the sum of the numbers. Player two moves **one** of the paper clips to a different number and places his marker on the corresponding sum. As the game progresses, each player tries to get four in a row vertically, horizontally, or diagonally while also blocking his opponent from getting four in a row.

16	1	12	3	4	15
6	7	8	9	10	11
2	13	4	5	6	17
10	8	1	2	3	14
5	6	7	8	9	10

0 1 2 3 4 5 6 7 8 9

Name _____

Circle the pattern unit. Put an X where there is an error.

△ △ ○○ △ △ ○○ △ △○ △○○ △ △○○

Add or subtract.

$\begin{array}{r} 6 \\ +\ 0 \\ \hline \end{array}$ 4 + 5 = ____   7 - 6 = ____ $\begin{array}{r} 8 \\ +\ 2 \\ \hline \end{array}$ $\begin{array}{r} 3 \\ +\ 7 \\ \hline \end{array}$ 6 + 4 =____

Fill in the number that comes before and after.

____ 11 ____   ____ 55 ____   ____ 39 ____

____ 23 ____   ____ 76____   ____ 97 ____

Write the time in 3 ways.

_____

_____

_____

What is the best tool to add 20 numbers?

a. a scale

b. a calculator
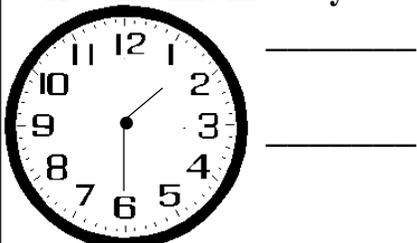
c. pencil and paper

Favorite Ice Cream Flavors

CHERRY   //// //

CHOCOLATE   //// //// ///

VANILLA / / /

Mint Chip   ////

How many children chose:

cherry _____   chocolate _____

vanilla _____   mint chip _____

Journal: Write a story and draw a picture about 7, 3, and 4.

To the Teacher

During the last few weeks of school, a fun way to review what has been taught is by playing Math Jeopardy. Create a gameboard with the following categories. **Nifty Numbers**, **Geometry & Measurement**, **Patterns**, **Data** and **Potpourri.** Under each category attach four or five library pockets. Place index cards containing questions from each goal in the pockets. Sample questions are listed below. Divide your classroom into teams and let the competition begin. One point can be awarded for each correct answer, or points can be given (1-5 points per question) according to difficulty.

Nifty Numbers:

What is 4 + 5?
The number after 9 is...
What number is: Less than 7, An even number,
The sum of 2 and 2?

Give an addition fact with a sum of 7.
How much is 2 tens and 8 ones?
What number comes next: 25, 30, 35, ___
Which is greater: 37 or 73?

Geometry & Measurement: (Draw shape for student to identify)

What shape has 3 sides and 3 corners?
How many sides on 2 squares?
(Draw open/closed figure) Is this figure open or closed?
(Draw shape. Divide into equal or unequal parts.) Does this show equal parts?
Questions related to this month's calendar
(Draw clock face) What time does the clock show?
How many paper clips long is this line? (Student measures it)

Patterns Galore

What do all of these pictures have in common? (Ex: pictures of animals) Name one way a rabbit and a horse are alike. Name one way a rabbit and a horse are different. Provide a pattern. Students can: Tell what would come next; find the mistake in the pattern; translate into another form; identify the pattern unit.

Data

Refer to a class graph - ask a variety of questions about the graph.

Potpourri

This section contains a hodgepodge of mental math, problems to solve, or "just for fun" questions.

Mental Math

1. If I have 8 tens and 6 ones, what is my number?

2. What number comes between 59 and 61?

3. What number is ten less than 45?

4. What is the total number of corners on a triangle and a rectangle?

5. 10 less than 73 is _____ .

6. You woke up at 7:00 a.m. and left the house one hour later. What time was it?

7. Four dimes plus 5 dimes equals _____ dimes.

8. What comes after 58?

Nifty Numbers

To practice basic facts, or to sharpen skills with missing addends, use a "cover up" activity such as the following:
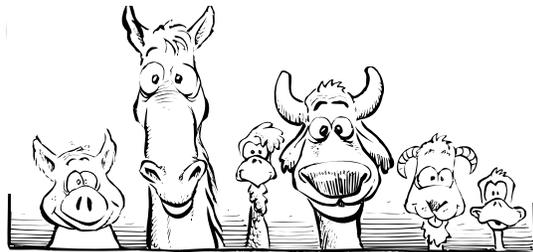
9 - ☐ = ◯

If 4 is the ☐, what number is in the ◯?

(1.03)

Look And See

Use your arms to show these times:

3:00
6:00
12:00
9:00
1:00.

(2.02)

Patterns Galore

Continue the patterns:

1, 5, 2, 10, 3, 15, 4, 20. . .

clap, snap, clap, snap, snap, clap, snap, snap, snap, clap, . . .

44, 4, 55, 5, 66, 6, . . .

(5.03)

Brain Teaser

I am a number between 3 and 8. I am less than the sum of 3 and 3. I am greater than the difference of 8 and 4. What number am I?

(1.04)

Let's Explore

Give students(in pairs) a piece of string 20 inches long. Have them explore the classroom and make a list of items shorter, longer, and the same length as their string.

COMPARE!

(2.01a)

Writing About Math

Think of a number between 0 and 10. Write three clues about your number. Try to use words like "after, before, between," and some math facts.
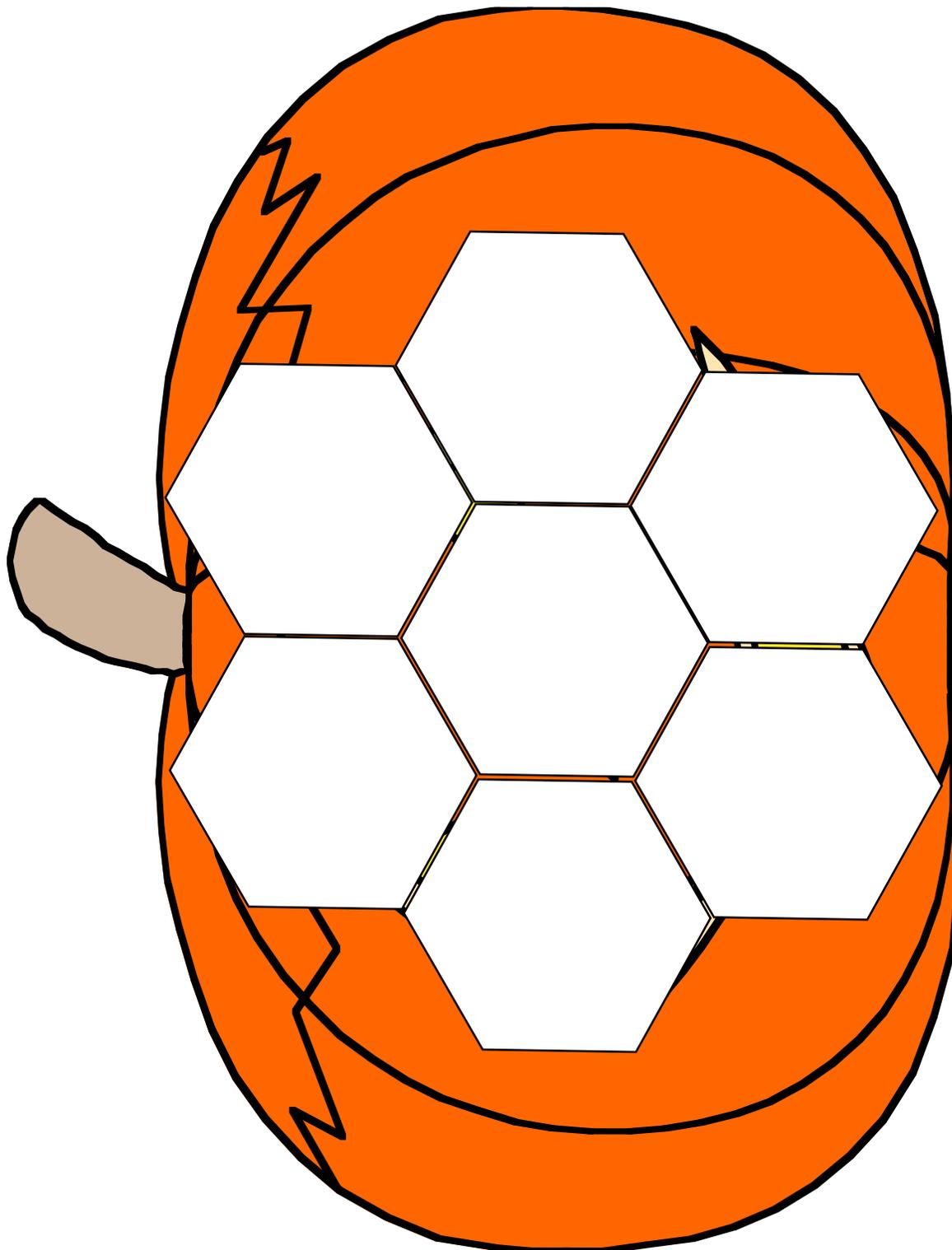
(1.01d)

Pumpkin Nim

Materials: 1 gameboard, assortment of pattern blocks but only one hexagon.
Number of Players: 2
Directions: Each player takes turns placing 1 or 2 pattern blocks on the gameboard. The last player to add a block to the board is the winner!
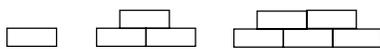

(3.04)

Name _____

Continue the pattern:

▭   ▭▭   ▭▭▭   _____   _____   _____

4	8	5	9	3	7
+ 4	- 4	+ 5	- 5	+ 2	- 5

Write the number that is 5 less than:
a) 26 _____   c) 41 _____   e) 45 _____
b) 15 _____   d) 5 _____   f)   69 _____

Circle the clock that shows lunch time.

| 5:00 | | 12:00 |

Fill in the missing numbers from the hundreds board.

	75		77			80
84				88	89	
	95					

2					
	13		15		17		19
		26			
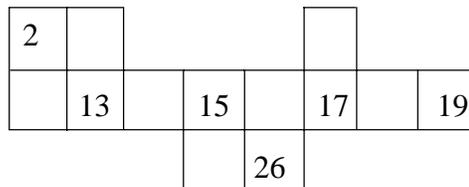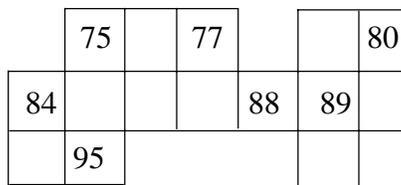
Jane's birthday is on the second Wednesday in this month. What is the date of Jane's birthday?

_____

Journal: Write about three things that you could do in **one minute**.

To the Teacher

Look and See:

Repeat the same types of activity with this variation: Duplicate a chart showing items to be measured around the classroom. In one column, students will write their estimates of the measures using a designated unit (paper clip, unifix cube, crayon). They will then measure the items, record lengths, and compare the actual measure to the estimates.   (Measurement)

To follow up the activity, discuss the differences in their estimates and actual measurements. Note children's skill in comparing two numbers. Encourage students to suggest ways that they might make better estimates.

As the students work in partners, listen for the unsolicited use of measurement vocabulary.

Use the calculator to explore 10 more/10 less. Instruct students to enter a 2-digit number into the calculator, then write it down. Have them press + (or -) 10 = and write the sum (or difference) under the first number. Call attention to the two numbers, discuss what is the same and different and why.

Mental Math

1. The sum of s-e-v-e-n and t-h-r-e-e.

2. Ten more than 49.

3. What number is one less than 72?

4. What comes next: 18, 20, 22 _____.

5. What number plus 8 equals 10?

6. What number is missing? 89, ____, 91.

7. The hour hand is on the twelve. The minute hand is on the twelve. What time is it?

8. If three children shared twelve pieces of candy equally, how many pieces would each get?

Nifty Numbers

On a hundred board, have students point to 43. Instruct them to add 10 by counting ten spaces towards the right: 44, 45, 46..53. Have them to compare the 43 (where they started) to the 53 (where they landed) after adding 10. After a few more examples, ask students if there is a quicker way to add 10 on a hundred board (moving one space down). Practice several examples of adding ten the "quick" way. On another day, explore subtracting ten in the same manner..

(1.01d)

Brain Teaser

If you threw two darts and they both hit the target, what scores could you have? Find all of the possibilities

1
3
5
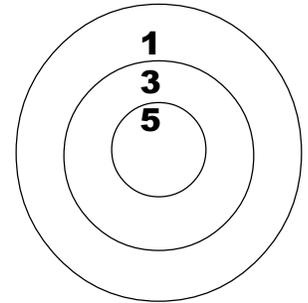
(1.03)

Look And See

Question: Who in our class has the longest footprints? the shortest footprints? the same length?
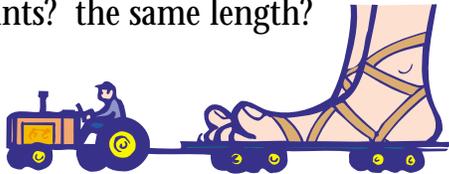
(2.01c)

Let's Explore

Prepare a Venn diagram for each student (see Blackline Master). Each student will choose two questions with which to survey their classmates. Display the diagrams and give students the opportunity to add their names to each page. Students will analyze the information on their Venn diagrams, and write their observations in their journals.

(4.01, 5.02)
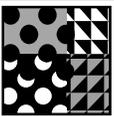
Patterns Galore

What comes next:
3, 13, 23, 33, 43, ___, ___, ___.
What is the pattern?

(5.03)

Writing About Math

If Sam's foot is longer than Jerry's, who would have to take the most steps to get to the cafeteria? In your journal, write a story to explain your answer.
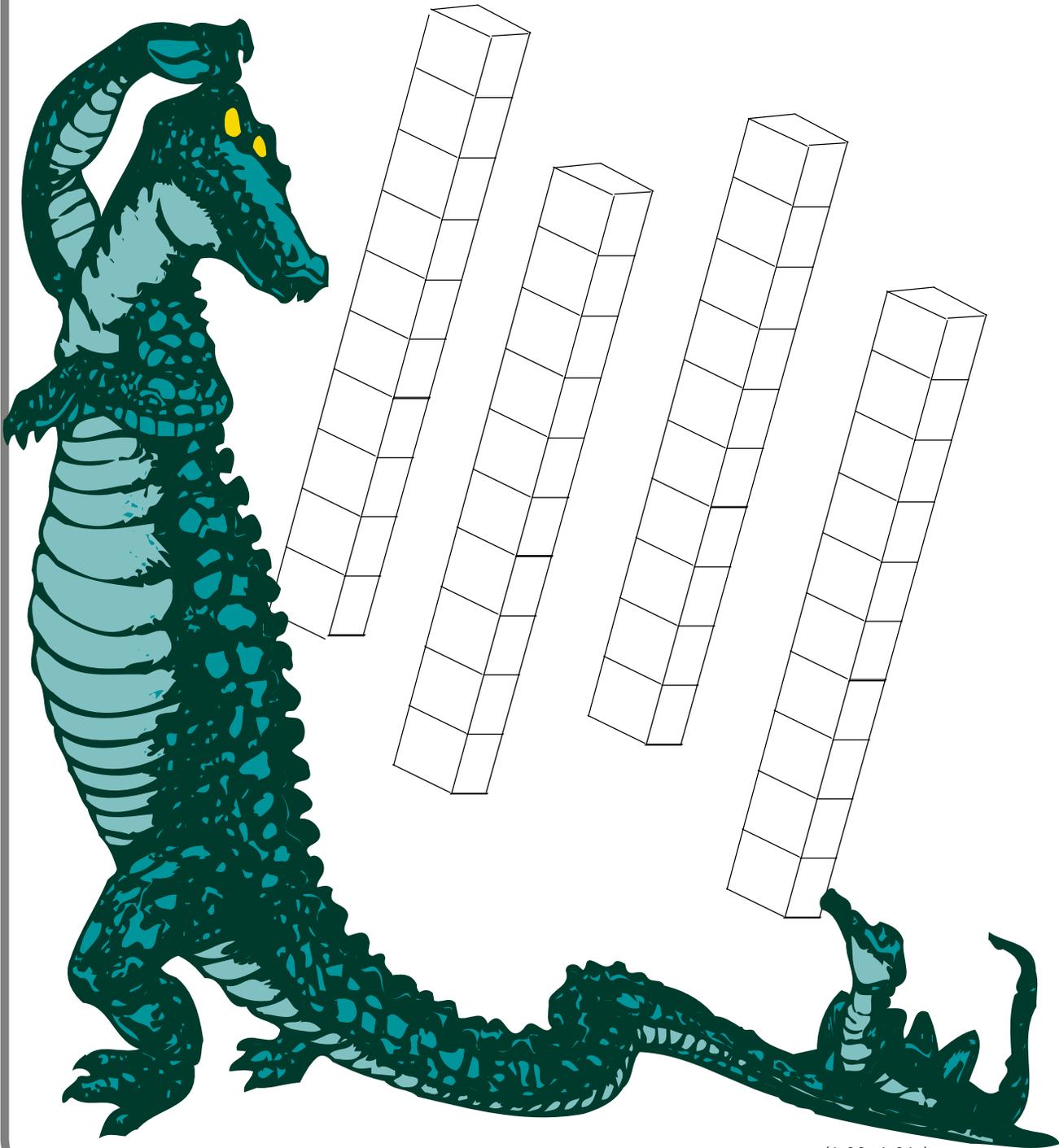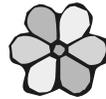
(2.01c)

Shorty Forty

Materials: 1 number cube, Unifix cubes (40 of one color per player). Students could use beans and small cups.

Numbers of Players: 2- 4

Directions: Players take turns rolling the number cube. Subtract the number from 10. Collect the number that is the difference. The first player to collect forty cubes (snapped into groups of 10) is the winner.

(1.03, 1.01e)

Name _____

Continue the pattern:

29, 27, 25, _____, 21, 19, _____   _____ _____ _____

Check my work. Put an X on incorrect problems.


```
   10          6                                      5              3
  - 3        + 3        7 - 5 = 1    8 + 0 = 8      +4             + 4
   7          10                                     8              6
```

Fill in the missing numbers.

12   16   18   24   28   32
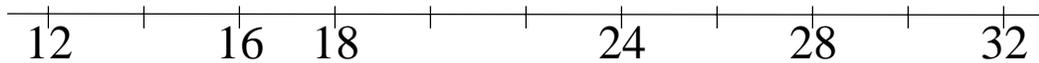
We eat breakfast at 7:00. Draw the hands to show breakfast time.

Draw a square inside a rectangle inside a circle.
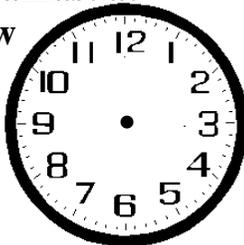
Tally the number of sides on each geometric figure

SIDES ON GEOMETRIC FIGURES

rectangle

hexagon

trapezoid

parallelogram

square
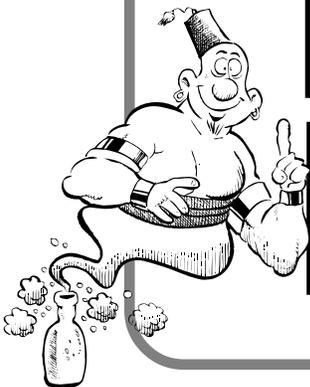
triangle

Journal: Draw 4 different geometric shapes that have 4 sides. Label the shapes.

143

In the **<u>Profiles</u>** for next year's teacher, include three to five samples of student work which illustrate the student's understandings in mathematics. You should include at least one graphing example where the student collected and organized data and one story illustrating a number fact. Another example might be a non-routine problem.

Children frequently know and are able to use far more mathematics than they are able to communicate in a traditional symbolic format. Assessment, therefore, is most valuable through observation, discussion, and performance tasks.

This does not mean that first grade children should not have pencil and paper assessments. This does mean that children need many hands-on experiences as they explore concepts and develop skills. This also means the evaluation of a student's achievement is the result of a collection of evidence gathered over time from a variety of sources.

Mental Math

1. What was the date one week ago?

2. What comes next? 30, 40, 50, ____.

3. Which has more sides, a trapezoid or a hexagon?

4. I have 9 guppies and 6 goldfish. How many more guppies do I have than goldfish?

5. What number minus 4 equals 4?

6. Seven tens and nine ones is another name for what number?

7. What is thirty less than 65?

8. What comes between 39 and 41?

Nifty Numbers

Students model a relatively "small" two-digit number as instructed by the teacher and write it on their paper. After adding another set of 10, "read" the model and write the new number. Continue adding one more set of 10 until a number in the 90's has been reached. Discuss the pattern that is occurring with the numbers. On another day, repeat the process by beginning with a "large" 2-digit number and subtracting 10 at a time..
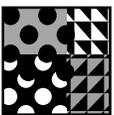
(1.01e)

Look And See

Which is longer: from your knee to your ankle, or from your elbow to the tip of your fingers. How do you know? Explain how you found out..

(3.04)

Patterns Galore

Create a "skipping numbers" pattern. Explain your pattern. You may use a hundred board to help you.
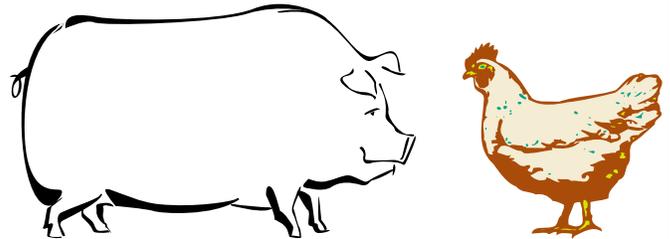
(5.03)

Writing About Math

CREATE A STORY: Write a letter to next year's class explaining what they will learn in math as a first grader.

Brain Teaser

(1.04)

A farmer looked across his barnyard. He saw 14 legs. Some were chickens, and some were pigs. How many of each animal did he see? Is there more than one answer?

Let's Explore

Complete the tally to show the lunch count for Mr. Scott's Class.

Monday, four students brought their lunch.

Tuesday, two more than on Monday brought their lunch.

Wednesday, three less than on Tuesday brought their lunch.

Thursday, two more than on Wednesday, brought their lunch.

Friday, three more than on Thursday brought their lunch.

LUNCHES

Friday

Thursday

Wednesday

Tuesday

Monday

(1.04)

Outer Space Chase

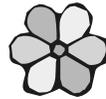**Materials:** Gameboard, pair of number cubes, 1 marker per player
Number of Players: 2-3
Directions: Players take turns, rolling cubes and adding.
 Subtract the sum from 12. If the difference is on the next star, move ahead. If not, stay.
The first player to reach the Flying Saucer wins.

2
4
9
5
6

1
2
8
7
3
0

10
4
8
1
7
6
11

Any number greater than 6

(1.03, 1.04)
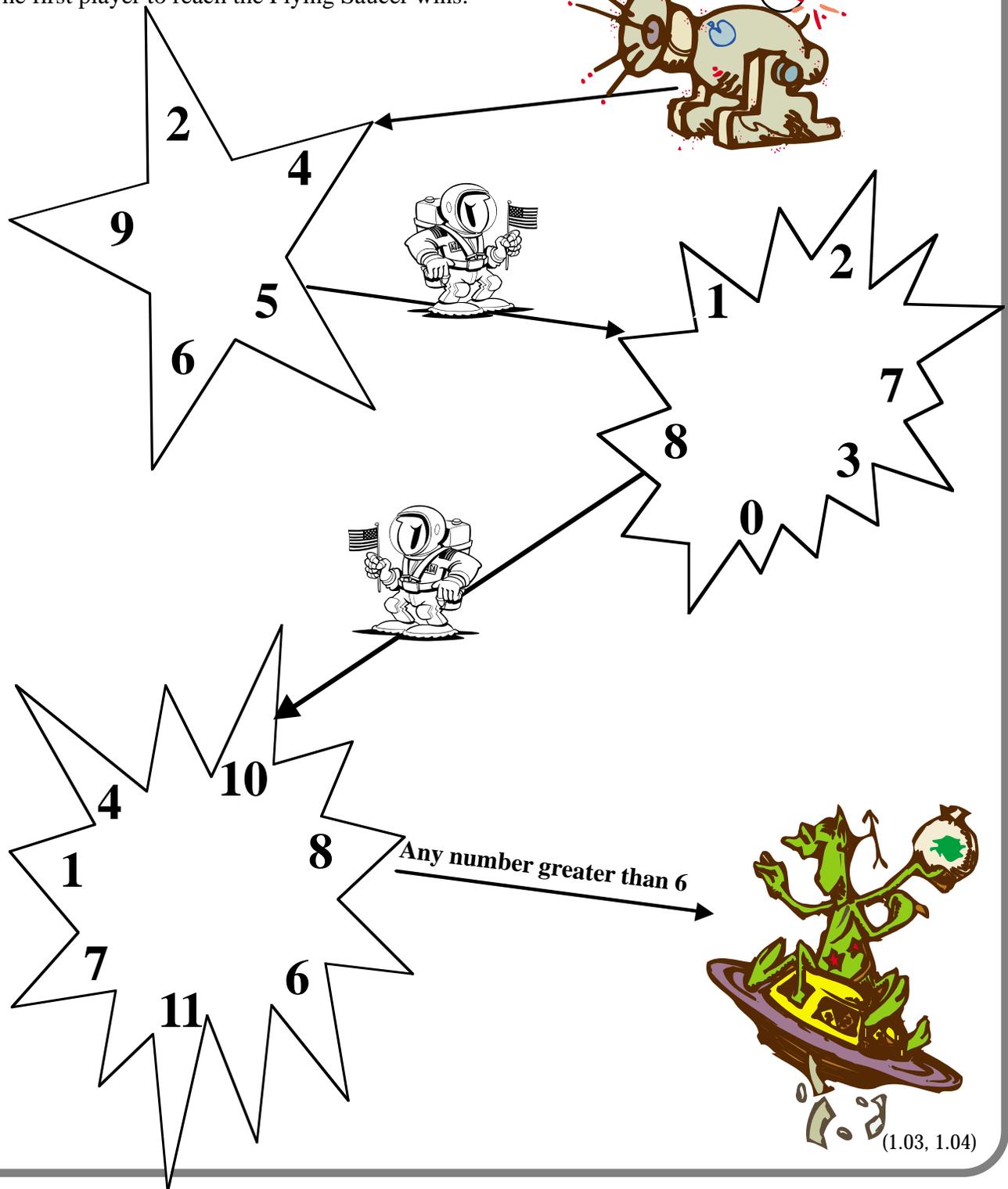
Name _____

Circle the pattern unit.

X X ○ △ X X ○ △ X X ○ △

Add or subtract.

$3 + \square = 5$

$4 - \square = 3$

$8 - \square = 3$

$\square + 3 = 5$

$\square + 7 = 9$

$5 + \square = 8$

Write the sum or difference:

20	60	80	30	90	50
+10	+20	-10	+30	-70	-40

The school day ends at three o'clock. Draw the hands to show that time.
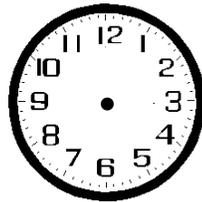
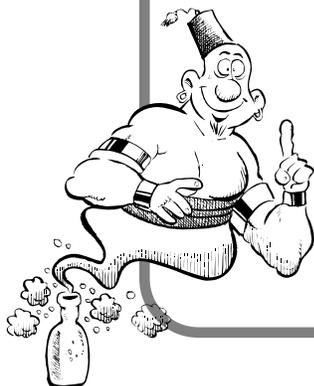Give the graph a title and label the axis.
Students with two pockets = 3
Students with three pockets = 4
Students with no pockets = 1
Students with six pockets = 4
Students with eight pockets = 2
Students with four pockets = 5

Name two cylinders in our classroom.

_____

_____

Journal: Write about how you plan to spend the first 2 days of your next vacation.

This is the last week!
Think about your year of mathematics instruction. Have your students made the progress you wanted them to make? Evaluate the assessments you have used with your students this school year and the ways you have instructed your students. In what areas have your students excelled? Why do you think they excelled in these areas? What types of instruction did you use to enhance this learning? Were there any areas your students did not make the progress you wanted them to make or where the students remained weak? Consider how you can change or add to your instruction for another year. Have a nice vacation!!

Mental Math

1. The number of sides on a square plus the number of sides on a triangle?

2. What comes between 54 and 56?

3. What is 20 less than 70?

4. What comes next? blue, green, blue, red, blue, green, blue _____.

5. Which is greater, 90 or 38?

6. What number minus 7 equals 1?

7. What number is missing? 77, ____, 79.

8. There are 9 marbles in a bag. Two are blue. The rest are red. How many are red?