Let’s Write
Write a note to explain to your teacher how you and your partner played Race to a Dollar.

Investigations
Have children look through magazines to find pictures of shapes composed of cubes, rectangular prisms, cylinders, cones, and spheres. Cut out the pictures and glue on a recording sheet as a class. Identify the shapes that make the larger figure. These may be displayed on a bulletin board.

Seeing Math
1. Fold a square along the diagonal. Cut on the fold. What shapes do you have?
2. Take one triangle. Fold the top down. Cut along the fold. What two shapes do you have?
3. Fold the other large triangle in half. Cut. What do you have?
4. Can you make the square?

What Do You Think?
The students wanted to play ball. Each team needs eight players. There are 11 boys and 13 girls in the class.
How many teams can be made from the students in the class?
Write about your solution.

Patterns, Patterns, Patterns
Find the error in the patterns.
1. AABCAABCAABCCAABC
2. 56, 54, 52, 50, 48, 47, 44, 42
Race to a Dollar

*Directions:* Each student needs a gameboard. Students take turns rolling a die and collecting pennies. Ten pennies will trade for a dime. The first player to win ten dimes (and thus has the value of a dollar) is the winner.
Keeping Skills Sharp

1. 14 - 9 = ___  
2. 50 - 10 = ___

3. 17 - 8 = ____  
4. 90 - 40 = _____

5. What’s missing?  
   \[ \begin{array}{ccc}
   81 & 82 & 84 \\
   92 & 93 & \\
   \end{array} \]

6. December is the 12th month. March is the ___ month.

7. Is 76 closer to 70 or 80?

8. Sara drew eleven stars. Darius drew four stars. How many more did Sara draw than Darius?

Solve this!

How many different ways can twelve counters be placed in each part of a three circle snowman, with at least one counter in each circle?

Find a way to record your answers.
Games of the Week: “Race To A Dollar”
Children can use real money, plastic money or paper coins (see the Blackline Masters). This game focuses on place value and coin recognition (penny, dime).

Investigations:
Another possibility is a shape book with each geometric shape having its own chapter or a series of shape books. Students can add to the collection as the year progresses.

Solve This:
Students use unifix cubes, two color counters, beans, etc. One way students could record their answers is with number sentences (3 + 3 + 6; 9 + 1 + 2; 2 + 2 + 8, etc.).

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### Mental Math

Directions to Students: Number your paper from 1 to 10. Write your answers as the questions are called out. Each question will be repeated only once.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>17</td>
</tr>
<tr>
<td>2.</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>30</td>
</tr>
<tr>
<td>4.</td>
<td>87</td>
</tr>
</tbody>
</table>

Write the number that is ten less than:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>5.</td>
<td>5 + 8</td>
</tr>
<tr>
<td>6.</td>
<td>9 + 6</td>
</tr>
<tr>
<td>7.</td>
<td>12 - 3</td>
</tr>
<tr>
<td>8.</td>
<td>9 + 8</td>
</tr>
<tr>
<td>9.</td>
<td>15 - 6</td>
</tr>
<tr>
<td>10.</td>
<td>14 - 7</td>
</tr>
</tbody>
</table>

### Keeping Skills Sharp

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>73, 83</td>
</tr>
<tr>
<td>40.</td>
<td>3rd</td>
</tr>
<tr>
<td>9.</td>
<td>80</td>
</tr>
<tr>
<td>50.</td>
<td>7</td>
</tr>
</tbody>
</table>
Let's Write
Write a story about a triangle who wanted to become a star.

Seeing Math
Circle the symmetric figure.

Investigations
Given these number sentences, what number would you add to get the indicated result?

3 + ___ = 20
5 + ___ = 13
18 - ___ = 7
___ - 5 = 6
4 + ___ = 8
11 - ___ = 2
15 + ___ = 41
27 - ___ = 3
19 + ___ = 31
14 - ___ = 2

Arrange your numbers in a systematic way. (For example, chart, table, pattern, etc.)

What Do You Think?
There are some goats, some ducks, some pigs and some chickens in the farmyard. If you go out, you can see 22 legs. What animals might you see?

Patterns, Patterns, Patterns
What is the rule?
Tangram Search

Materials: Game cards; one set of tangrams* per two players.

Directions: Place cards face down and draw a card. Without touching the tangrams, decide which three or four pieces could fill the shape. Pick up the pieces and try. If your solution works, keep the card. If not, put the card on the bottom of the stack. The next player takes a turn. The winner is the person with the most cards.

*Note: These shapes are based on a 10 cm square tangram set.
Keeping Skills Sharp

1. \(17 + \square = 20\)  
2. \(13 + \square = 18\)

3. \(\square - 9 = 6\)  
4. \(\square - 3 = 9\)

5. What’s missing?

6. What shape is a soup can?

7. What’s the number:

8. Tom fished for five hours. He caught ten fish and put them in a bucket. When he looked in the bucket, there were only six fish. How many fish were missing?

Solve this!

At the ice cream store you can buy chocolate, vanilla, and strawberry ice cream. The store has two kinds of cones, sugar and regular.

How many different cones with one scoop could you buy?

Show your answer in words, numbers or pictures.
Let’s Write:
The Greedy Triangle by Marilyn Burns would be a good book to read to the class. Before the children write, draw a five-pointed star and talk about the geometric shapes.

Investigations:
Students should be encouraged to write number sentences with blanks or symbols and then share them with their classmates.

Assessment:
Students have now completed half of the school year. As you reflect on what the children have learned and what they need to learn, remember to set high expectations for your children and refer to the Standard Course of Study Goals and Objectives to help set those high expectations.

Game of the Week
Tangram Search: If you do not have plastic tangrams, go to the Blackline Masters section for a copy. Copy on stiff paper or tagboard and cut apart.

### Mental Math

<table>
<thead>
<tr>
<th>Is this an even or an odd number?</th>
<th>Write the sum or difference:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 37</td>
<td>5. 13 - 7</td>
</tr>
<tr>
<td>2. 19</td>
<td>6. 11 - 8</td>
</tr>
<tr>
<td>3. 74</td>
<td>7. 7 + 8</td>
</tr>
<tr>
<td>4. 61</td>
<td>8. 12 - 4</td>
</tr>
<tr>
<td></td>
<td>9. 7 + 4</td>
</tr>
<tr>
<td></td>
<td>10. 8 + 5</td>
</tr>
</tbody>
</table>

### Keeping Skills Sharp

<table>
<thead>
<tr>
<th>3</th>
<th>21, 33</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>cylinder</td>
</tr>
<tr>
<td>15</td>
<td>215</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
</tr>
</tbody>
</table>
Let's Write
Write a story about how many eyes, noses and buttons five snowmen like this need. *(1.05)*

Seeing Math
What do my blocks look like?
Draw what I describe:
1. Three groups of Unifix cubes with two cubes in each group.
2. The cubes are side by side but the groups are separate.
3. The first cube in each group is upside down. *(3.01)*

Investigations
Use old greeting cards or pieces of wall paper to create puzzles.
1. Take a card.
2. Cut it into five or six sections.
3. See if you can put it back together.
4. Give it to a friend and see if he/she can put it together. *(3.01)*

What Does a School Lunch Cost?
Make a display to show how you might pay for lunch. How many different ways could you pay the lunchroom worker?
With a partner find a way to make a display of all the possible ways. *(1.01a)*

What Do You Think? *(1.05)*
Carrie is getting ready for school. She has a blue shirt and a green shirt. She has white pants, blue pants and brown pants. How many different ways could Carrie wear her clothes to make different outfits? If her aunt gives her a red sweater, how would your answer change? In pairs or small groups allow students to answer the questions.

Patterns, Patterns, Patterns
<table>
<thead>
<tr>
<th>How many snowmen?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many snowballs?</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Panther Nim**

**Materials:** Pattern blocks (trapezoids, hexagons, triangles, and blue parallelograms) and a game board for two players

**Directions:** Players take turns placing a pattern block on the game board. The player who places the final block wins!
Keeping Skills Sharp

1. 46 - 10 = ___
2. 37 + 10 = ___
3. 640 + 10
4. 380 - 10

5. What’s missing? 52
6. 61

6. June, July, August, September, _________

7. In 493, what is the value of the 9?

8. If Kendall has seven dimes, can he buy a toy car for 66¢?

Solve this!

The sun comes up at six o’clock in the morning and sets at seven thirty in the evening.
If the sun is shining all day, how many hours of sunshine will there be?

How did you solve the problem?

If there are 14 hours of sunshine in one day when could sunrise and sunset be?
Is there more than one answer?
**Investigations:**
Making and solving puzzles of this type provides good practice in exercising spatial sense.

**What Do You Think?**
The solution to this type of problem is greatly facilitated with the addition of colored markers or manipulatives.

**Solve This:**
Student clock models will prove very helpful here.

<table>
<thead>
<tr>
<th>Mental Math</th>
<th>Write the sum:</th>
<th>Write the difference:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>4 + 6</td>
<td>5. 10 - 4</td>
</tr>
<tr>
<td>2.</td>
<td>4 + 5</td>
<td>6. 7 - 3</td>
</tr>
<tr>
<td>3.</td>
<td>8 + 5</td>
<td>7. 10 - 2</td>
</tr>
<tr>
<td>4.</td>
<td>5 + 6</td>
<td>8. 140 - 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. 120 - 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10. 9 - 3</td>
</tr>
</tbody>
</table>

**Keeping Skills Sharp**

<table>
<thead>
<tr>
<th>36</th>
<th>54, 63</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>October</td>
</tr>
<tr>
<td>650</td>
<td>90/9 tens</td>
</tr>
<tr>
<td>370</td>
<td>yes</td>
</tr>
</tbody>
</table>
Let's Write
Look at this month's calendar. Write five things you know about it.

(Review of calendar)

Seeing Math
Show each drawing briefly. Have students draw from memory.
A. Show once more and allow them to adjust their drawings.
B. “What did you see?” (Ask several students).

Investigations
How many drops of water can you get on the head of a penny? How many drops of water can you get on the tail of a penny?

What “rules” need to be established for the experiment?
Try a nickel, dime and a quarter.
Collect, compare and display data with a pictograph. What symbol will you use? What unit(s) could your symbol represent?

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What Do You Think?
If the tennis courts are open at four o’clock and the bears play 4 one-hour games, will they be finished before Mrs. Bear calls them for dinner at seven o’clock?
Explain your answer.

(1.01a)

Patterns, Patterns, Patterns
What shape comes next? How do you know?

(5.01)
**Odds and Evens**

**Materials:** Paper clips for the spinners, pencils and gameboard.

**Two players:** Rod and Steven

**Directions:** Each players spins one spinner and the two results are added. If the sum is even, Steven records it, if the sum is odd the number goes to Rod. First player to fill all the blanks is the winner.
Keeping Skills Sharp

1. = _____¢  
2. = _____¢
3. = _____¢  
4. = _____¢
5. 5¢, 10¢, 15¢, _____
6. How much more money do you need to make $1.00?
7. In 387 what is the value of the 3?
8. Mrs. Lee has 25 students. Fourteen students are girls. How many students are boys?

Solve this!

Solve the riddle.

Four famous presidents are on the penny, nickel, dime and quarter. The four coins are in a row. Use these clues to put the coins in the correct order:
1. The coin with the first president of the United States is last.
2. The two presidents with pony tails are next to each other.
3. The Civil War president is facing all three of the other presidents.

What order are the coins in?

_______  ________  ________  ________

Now write a riddle using one penny, one nickel, one dime and one quarter. Let a friend read your riddle and solve it.
Money, Money, Money:
Children need many concrete experiences with money.
Objective 2.15: Solve problems using money. Estimate cost and make change using coins up to $1. These are skills that children develop over time. Children can “count up” to determine change. For example to count from 32¢ to $1, children could count to 35 and then count by 5’s or 10’s to get to 100. As they count, children can use coins to keep track of the amount.

Solve This:
You may want to model the process of writing a riddle before the students write it individually.

What Do You Think?
Students need many opportunities to explore even and odd numbers. Using objects, students can discover that when objects are paired even numbers always have a partner. Students may also discover that even numbers can always be divided into two equal groups. Exploration of even/odd numbers is important for second graders.

Mental Math
Directions to Students: Number your paper from 1 to 10. Write your answers as the questions are called out. Each question will be repeated only once.

Write the sum:
1. 40 + 10
2. 25 + 10
3. 43 + 10
4. 25 + 20
5. 80 + 20
6. 10 + 70
7. 15 + 10
8. 19 + 20
9. 35 + 20
10. 50 + 30

Keeping Skills Sharp
5 20¢
1 44¢
25 300 or 3 hundreds
10 11 boys