★★ 1. Some numbers are missing. Write them on this number line:
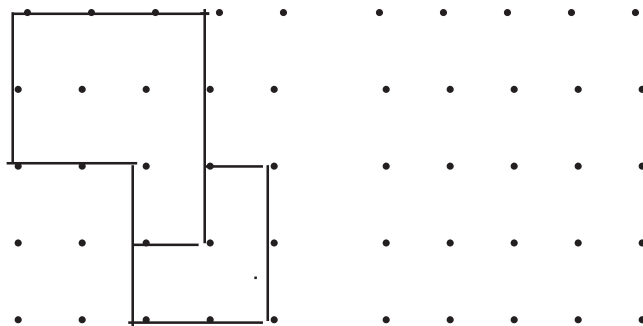
```
<-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---->
      33                   37   38                   41                   44
```
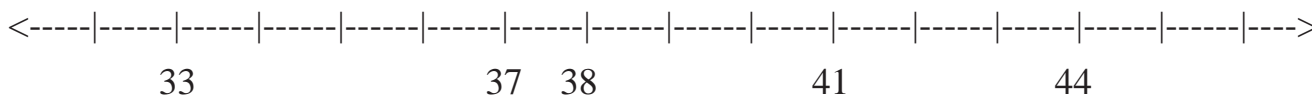
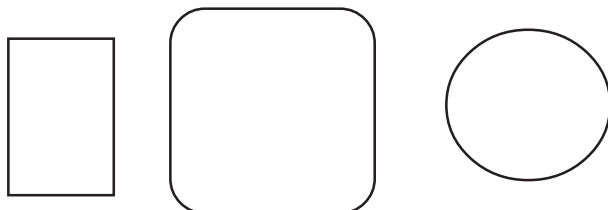★★★ 2. What is the rule?

```
 6-------------> 4
 8-------------> 6
10-------------> 8
20-------------> 18
```

Rule:_____

★★ 3. Draw a figure just like this one:

★ 4. Color the figure with the largest area:

Strategy of the Month

Someone said, "A picture is worth a thousand words." Turning the words of a problem into a picture or a diagram can help you "see" the problem. By using the part of your brain that visualizes a situation or object, you may see relationships or information that helps you solve the problem. When someone tells you a story, try turning the words into a motion picture or a cartoon. When reading a description, try "seeing it in your mind's eye." If you can do these things, this strategy may be for you! Try using a picture or make a diagram to solve this problem:

On the playground there are three bicycles and four tricycles. How many wheels are there?

★★   7. How many paper clips long is the dotted line below?

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

About _____paper clips.

★★★★   8. If all clothes with   and all buttons were here   clothes with zippers were here

★★★   5. Place these sums in the correct column:

$4 + 0$ $3 + 4$ $2 + 2$
$0 + 5$ $3 + 1$ $4 + 5$
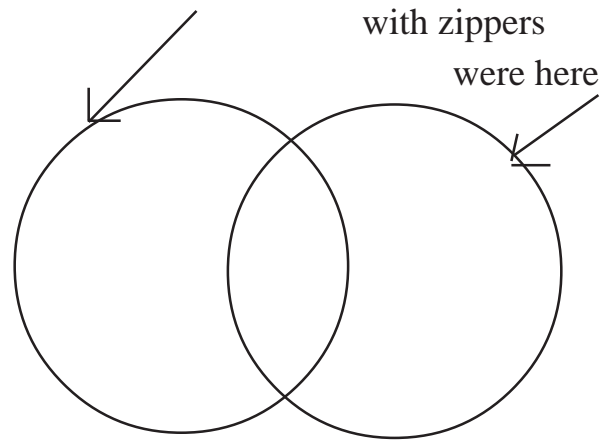$4 + 4$ $6 + 2$ $1 + 2$

Less than 6   Greater than 6

What would go in the middle?

_____

★★   6. Jody saw a ladybug with eight spots. Draw a picture to show how many spots Jody would see on three ladybugs ?

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★ 1. How many dots are needed to make the dominoes equal?

★★ 2. Follow the path to find the answer:
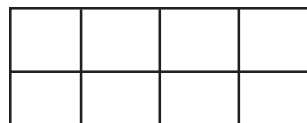
$$6 + 5 - 4 + 2 = \bigcirc$$

★★★ 3. You have a quarter and loan ten cents to a friend. What are the different ways you can show the money you have left?

★★★★ 4. Connect the points to make a shape that has four sides and four corners.
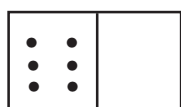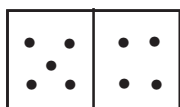
★ 5. Continue the pattern:

A, M, A, A, M, A, A, A, M, ___, ___, ___, ___, ___
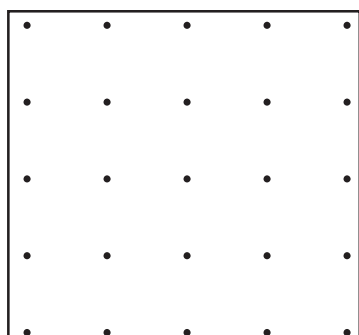
Strategy of the Month

*Noticing patterns helps people solve problems at home, at work, and especially in math class! Math has been called "the study of patterns," so it makes sense to look for a pattern when you are trying to solve a problem. Recognizing patterns helps you to see how things are organized and to make predictions. If you think you see a pattern, try several examples to see if using the pattern will fit the problem situation. Looking for patterns is helpful to use along with other strategies such as make a list or guess and check. How can **finding a pattern** help you solve this problem?*

How many different rectangles can you find in the figure on the left?

★★   7. Jane gets home from school at 3:00. She begins her homework at 5:00. How much time does she have to play before she begins her homework?

_____

★★★   8. Use your calculator to find:

a. How many two's are in 18 ? _____

b. How many fives's make 30? _____

c. How many four's make a dozen? _____
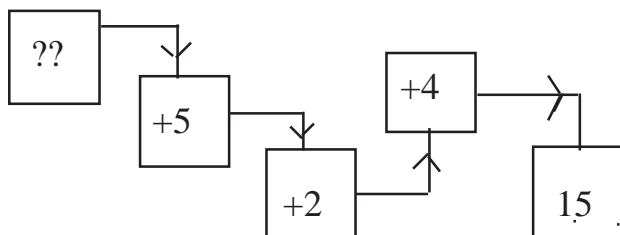
★★   6. On a trip to the beach you see a group of starfish. There are six in the group. How many arms do you count?

starfish	1	2	3	4	5	6
arms	5		15			

★★ 1. Find the first number for the flow-chart:

```
[??] → [+5] → [+2] → [+4] → [15]
```

★★★★ 2. Curly, Flipsy, Fuzzy and Topsy are sitting in a row. Topsy is first. Fuzzy is last. Curly is between Topsy and Flipsy. Who is in the third seat?

★★ 3. What numeral is shown?

:: :: ones

▦ ▦ ▦ hundreds

‖‖‖‖ tens

★★ 4. A waiter brought a pitcher of water to a table of six persons. Each person filled his glass and the pitcher was empty. If each glass holds 4 ounces, how much water was in the pitcher at the start?
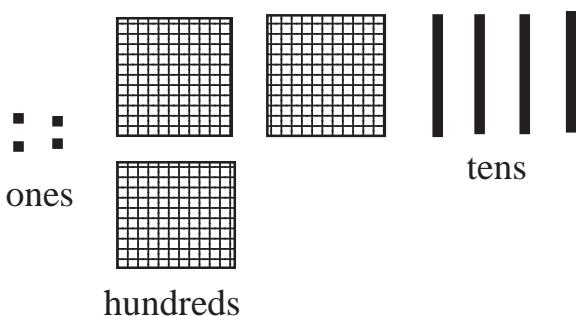
★★★★ 5. There are six puppies in the yard. How many tails, ears and legs are in the yard? Fill in the chart below to help you find the answers.

Tails_____   Ears _____   Legs _____

Dogs	Tails	Ears	Legs
1			
2			
3			
4			
5			
6			
✕	✕	✕	✕

Strategy of the Month

*Some problems are difficult to "see" even if you draw a picture. For these problems, it can be helpful to actually **act out the problem**. When you role-play with friends or people at home, you may discover the solution as you act out the problem. Or you may recognize another strategy that will help you find the answer. Sometimes "acting out" a problem can be done with manipulative materials. To find the solution to the problem below, become the director and choose your cast to act this out:*

Freddy Frog is at the bottom of the stairs. He can move up three steps each time he hops. The pool is at the top of the stairs. If Freddy Frog hops five times before he is in the pool, how many stairs are there to the pool?

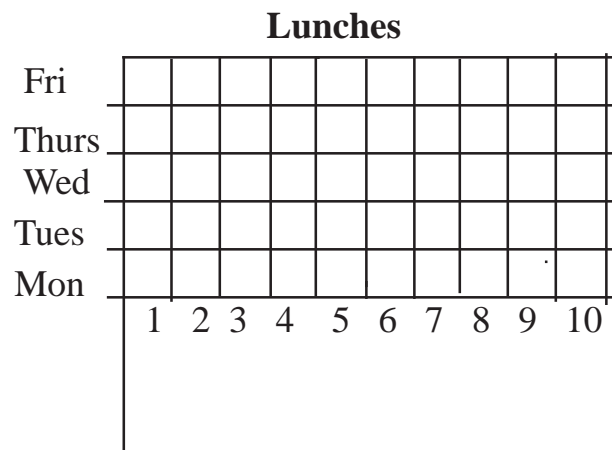★★★★ 8. Complete the graph to show the lunch count for Mr. Scott's class.

On Monday, four students brought their lunch.
 On Tuesday, two more than on Monday brought their lunch.
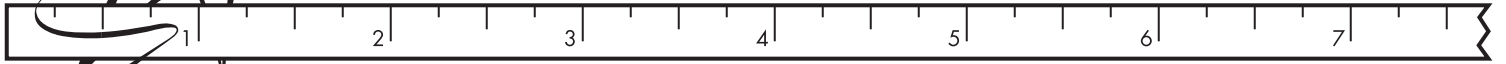 On Wednesday, three less than on Tuesday brought their lunch.
 On Thursday, two more than on Wednesday brought their lunch.
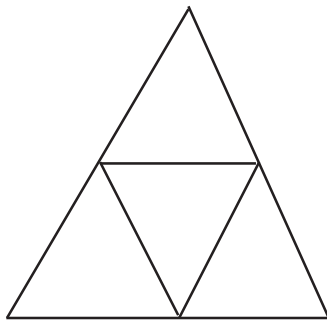 On Friday, three more than on Thursday brought their lunch.

★★ 6. Jody is trying to estimate the number of marbles in a jar. Use these clues to help him make a good guess:

(1) there are more than 44 marbles.

(2) there are fewer than 50 marbles.

(3) there is an even number of marbles.

How many marbles should Jody guess?

Lunches

	1	2	3	4	5	6	7	8	9	10
Fri										
Thurs										
Wed										
Tues										
Mon										

★★ 7. What number will make this statement true?

$$7 + 6 = \boxed{} + 9$$

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★ 1. How many different triangles are there in the diagram below?

_____ triangles

★★ 2. Robin Bird loves to eat worms. The chart below shows how many he ate in three days. If the pattern continues, how many will he eat on the eighth day?

Day	1	2	3	4	5	6	7	8
Worms	2	4	6					

★ 3. Ben's bus picks him up at 7:30 each morning. He arrives at school at 8:00 and the bell for class rings at 8:30. How many minutes does the bus ride take?

_____

★★★★ 4. Tamisha has 20 cents to spend at the school store. She wants to buy some candy to share with her friends. What can she buy?

Gummy Bears 5¢

Gum 3¢

7¢

8¢

Chocolate Bar

Cherry Pops

_____

_____

_____
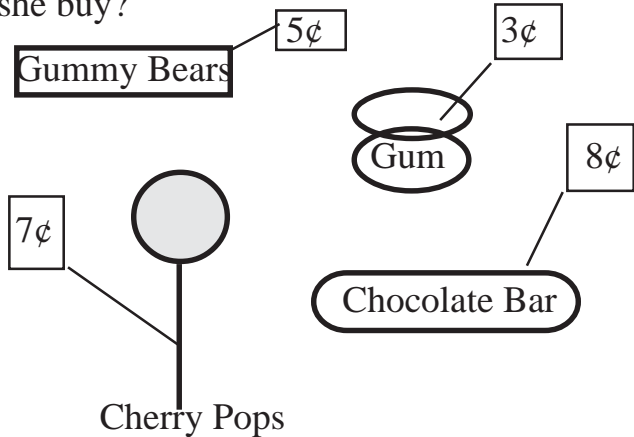
Strategy of the Month

What do you do if you have a problem that seems to be very complicated? It may have lots of large numbers, too much information, or multiple conditions. One approach is to create a simpler problem like the one you need to solve. As you solve the easier problem, you may see the way to solve the more difficult one. Or you may discover a different process that will work with the harder problem. The trick is to be sure that your simpler problem is enough like the original one that the patterns or process you use will help you with the harder situation. ***Make a simpler problem*** *first as you solve this:*

Six soccer players will shake hands before the game begins. How many handshakes will there be? {Suppose there are only three players; four players.}

★★ 5. Place the number facts in the correct shape:

  6 + 4   5 + 4   6 + 6   9 + 5
  2 + 8   1 + 9   3 + 4   8 + 3

Less than 10

More than 10

Equal to 10
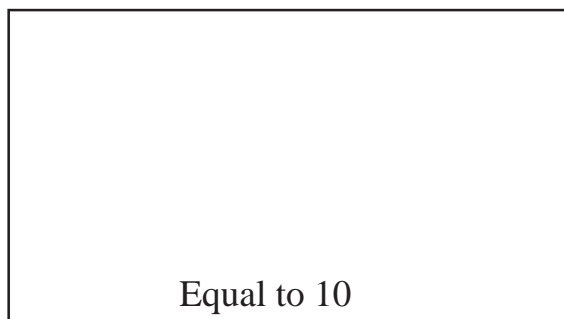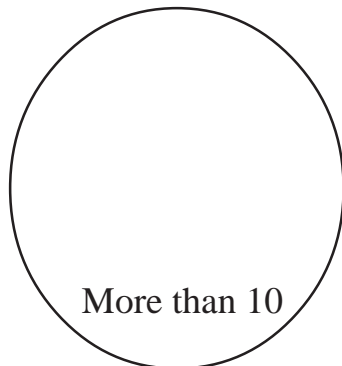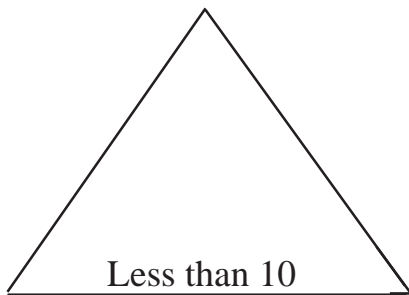
★★★ 6. Estimate how many steps it takes to walk from your bedroom to the kitchen. Then carefully count the number of steps you actually take. Would this be the same for everyone in your family? Why?

Estimate for you_____

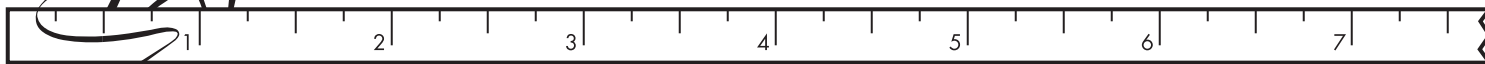Number you actually walked_____

Who takes more steps?_____

Why? _____

_____

★ 7. Write the numeral for:
six tens + two ones + two hundreds

_____

★ 8. How many days are in two weeks?

_____

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★★★ 1. Toss a penny in the air 20 times and let it land flat.

Mark on the chart each head and tail.

(1¢)

Heads	Tails
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
Total:	

★★ 2. Six birds have built their nests. Four birds laid three eggs each and two birds laid four eggs each. How many eggs in all?

★★ 3. If a = 1¢, b = 2¢, c = 3¢, and so on, what is the value of your first name?

4. In your pocket you have two dimes, one nickel and two pennies. Your friend has one dime, three nickels and five pennies in his pocket.

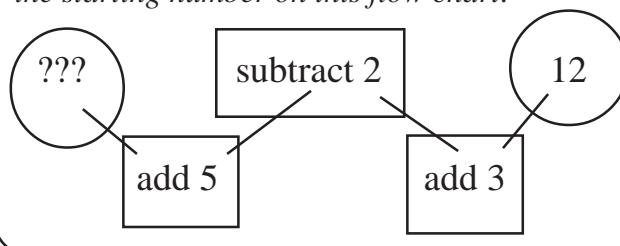My pocket: Friend's pocket:

_____¢   _____¢

Who has more money, you or your friend?

How much more?

Strategy of the Month

*What if you know the result of a situation, but you don't know the beginning? For example, you might know that you end up with thirteen baseball cards after doing a certain number of trades and you want to figure out how many cards you had before the trading started. In that case you need to work backwards; you have to think about your actions in reverse order. This strategy works for any sequence of actions when you know the end result rather than the starting place. Try **working backwards** to find the starting number on this flow chart:*

??? → add 5 → subtract 2 → add 3 → 12

★ 7. How many squares are in this picture?

_____squares

★★ 5. What number am I?
I am greater than nine.
I am less than 7 + 6.
I am an odd number.

★★★ 8. This puzzle piece was cut from a hundred board. Fill in the missing numbers.

★★★ 6. Put the numbers in the boxes where they belong.

[Hint: two numbers will not belong in any box.]

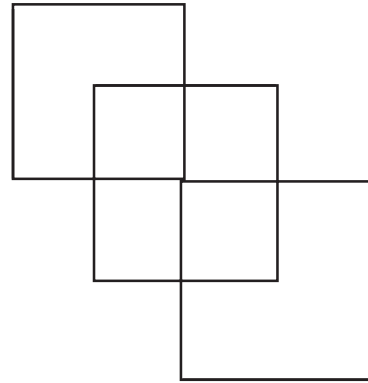6, 28, 51, 33, 48, 59, 14, 66, 8, 73, 25, 82, 38, 17, 96

25		
	36	
45		
	67	

Greater than 52

Less than ten

Greater than 12 and less than 39