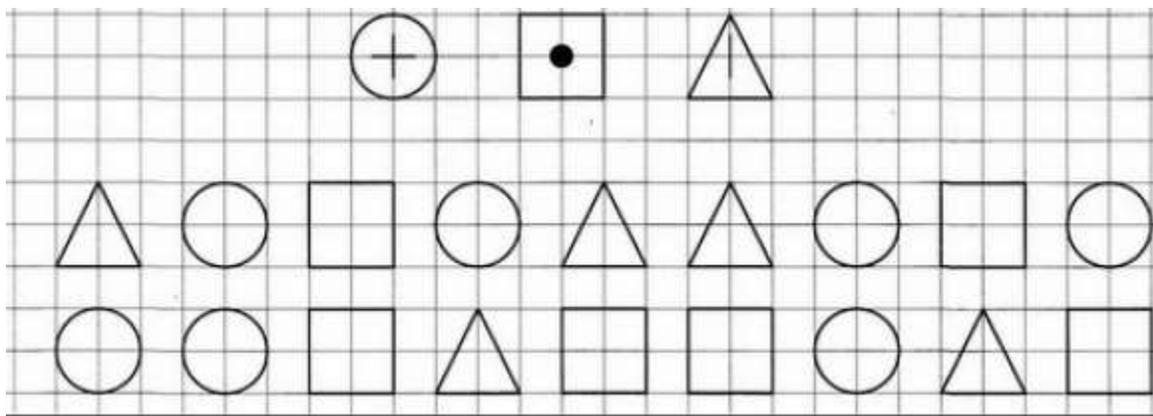# Homework 1

Problem 1

Under the row of shapes, draw the same shapes in a way so that there will be MORE shapes on the bottom row than on the top row.
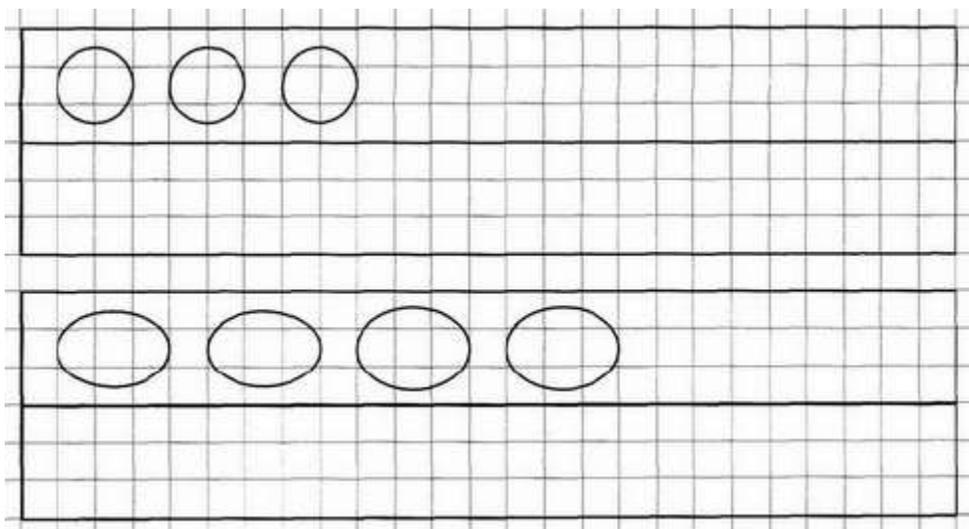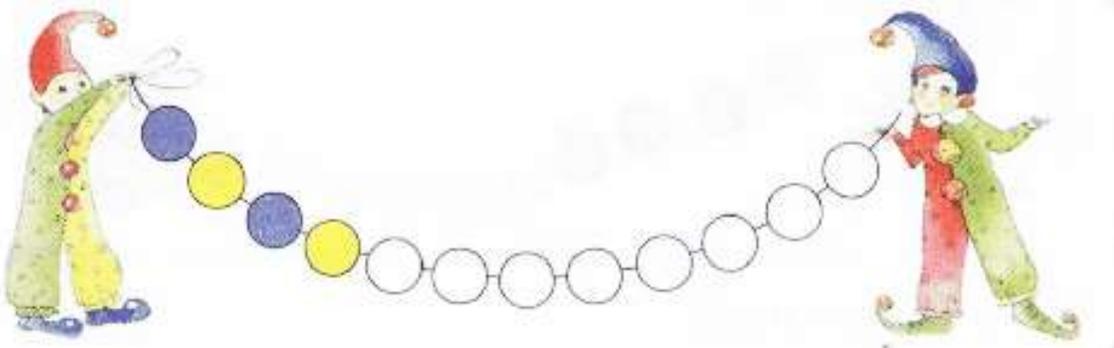

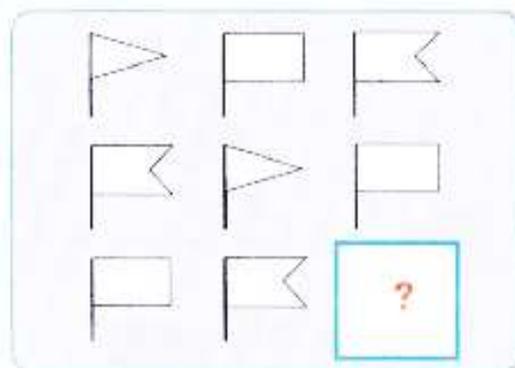Continue drawing the symbols inside each shape according to the pattern.
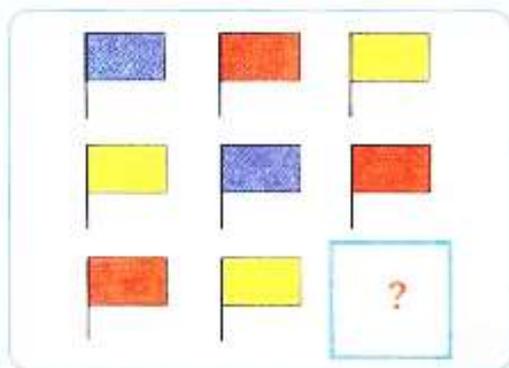
Problem 2 Look at the shapes in the boxes. Color in all of the shapes according to the pattern. Name all of the shapes and colors. Count the shapes in the boxes, write the number next to the shapes below.
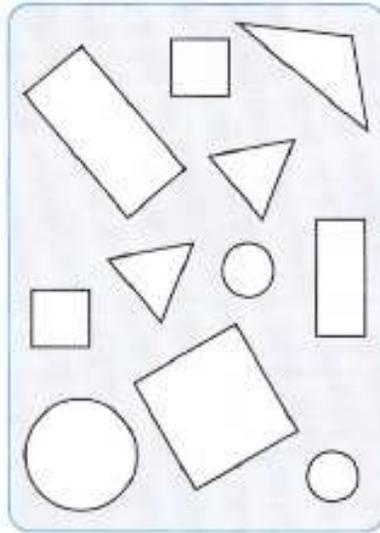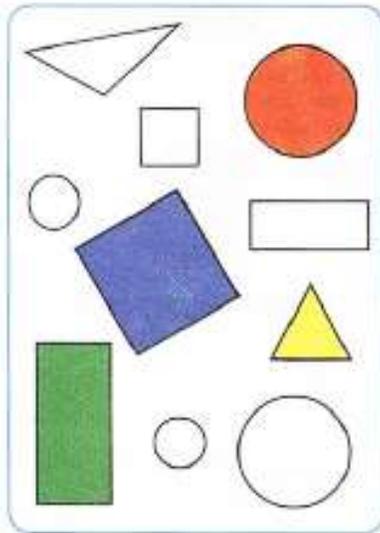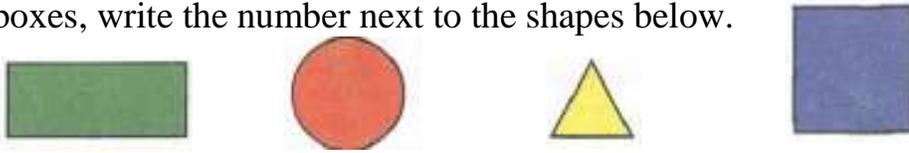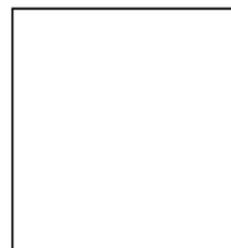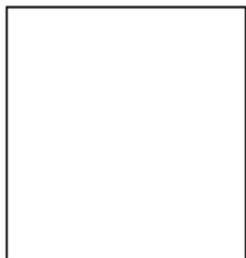
Color in the beads according to the pattern.

Draw the missing pictures by following the pattern.

Problem 3 What do the squares remind you of? Draw something interesting out of each square. Use your imagination.
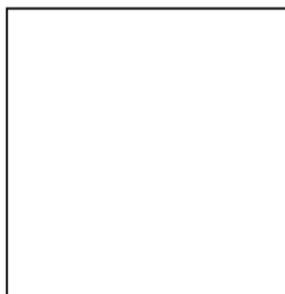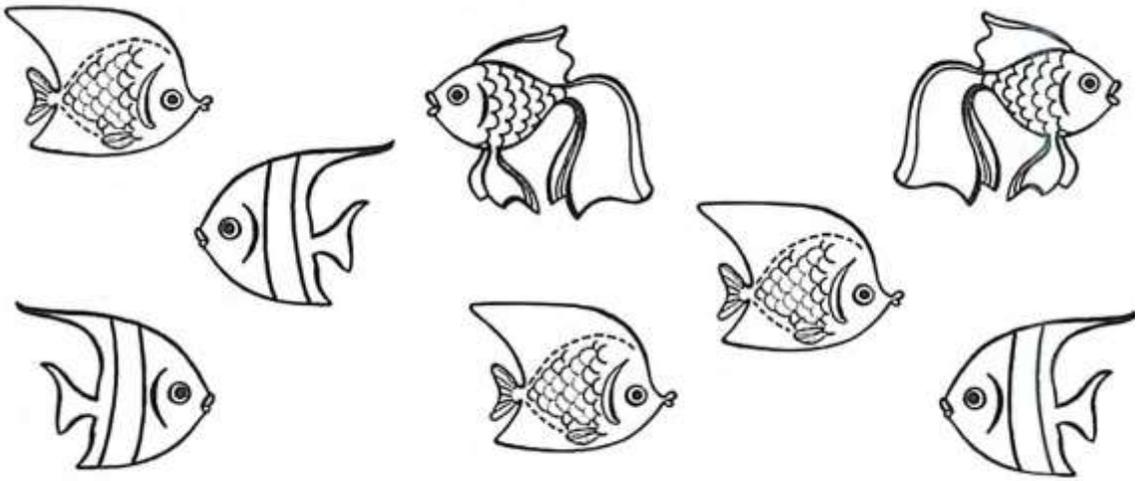
Problem 4

Look at the problems below. Notice "-2" subtraction. Subtract and write the answers inside the empty squares below:
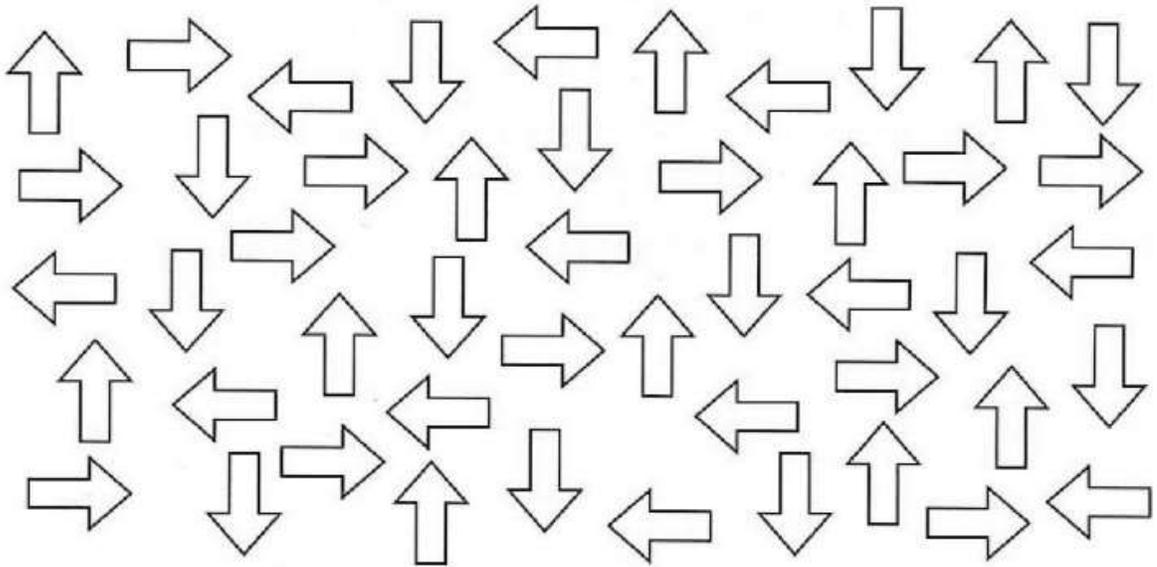
$$\frac{3-2}{3-1-1} = \square \qquad \frac{6-2}{6-1-\square} = \square \qquad \frac{9-2}{9-1-\square} = \square$$
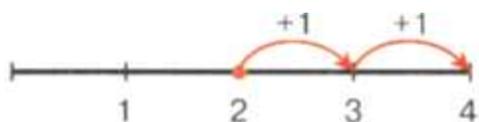
Problem 5 Color the fish that are swimming to the left red and the ones swimming to the right yellow.

Color in all the arrows that point to the left, red and all the arrows that point to the right, blue, down - yellow, up - green.
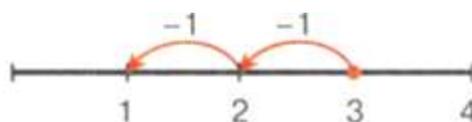
Problem 6 Watch each single step on the number line as you do addition and subtraction operations. Fill out the blank boxes.

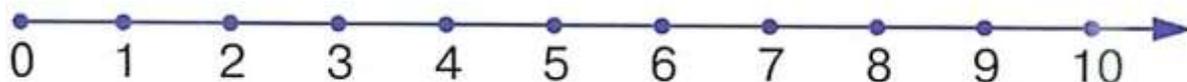$2 + 1 + 1 = \square$

$2 + 2 = \square$

$3 - 1 - 1 = \square$

$3 - 2 = \square$

$4 - 1 - 1 - 1 = \square$

$4 - \square = \square$

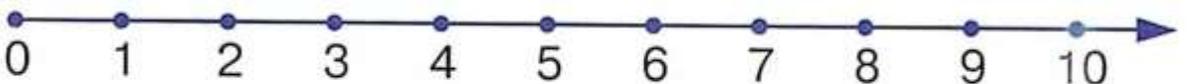Solve using the number line. Show your "jumps" on the number line.

$0 + 1 + 1 = \square$

$2 + 1 + 1 = \square$

$5 + 1 + 1 = \square$

$8 + 1 + 1 = \square$

$0 + 2 = \square$

$2 + 2 = \square$

$5 + 2 = \square$

$8 + 2 = \square$

$2 - 1 - 1 = \square$

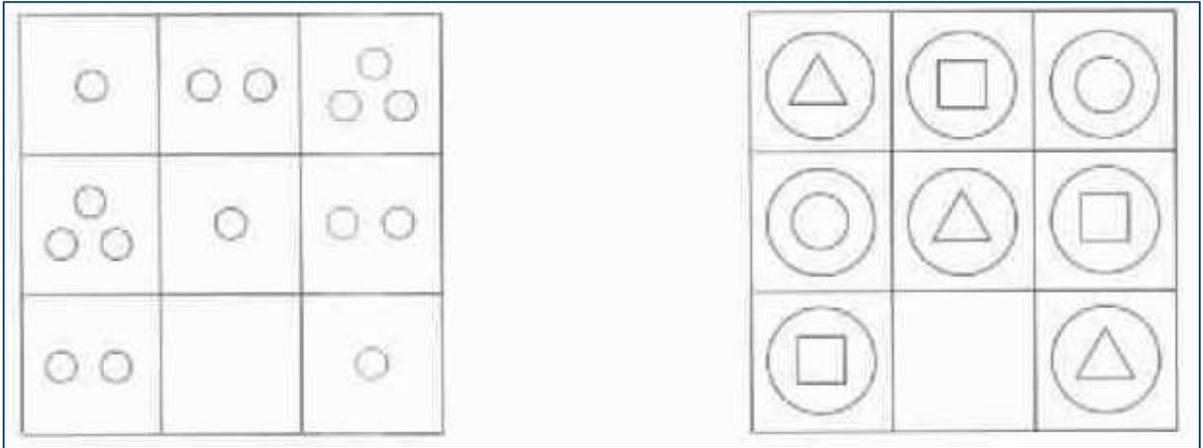$5 - 1 - 1 = \square$

$7 - 1 - 1 = \square$

$10 - 1 - 1 = \square$

$2 - 2 = \square$

$5 - 2 = \square$

$7 - 2 = \square$

$10 - 2 = \square$

Problem 7   Find the pattern and complete the picture.

Problem 8   Connect the dots from 1 to 20.

Homework 3

Problem 1
Color in the same shaped vases the same color.

Make the pictures the same way as the first one. Continue the pattern.
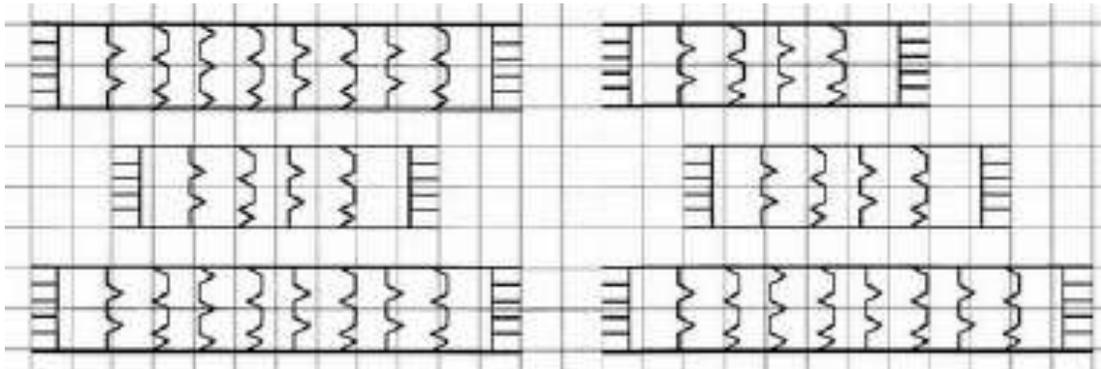
Continue the pattern.

Try to group objects together and circle each group of objects. Explain your answer.
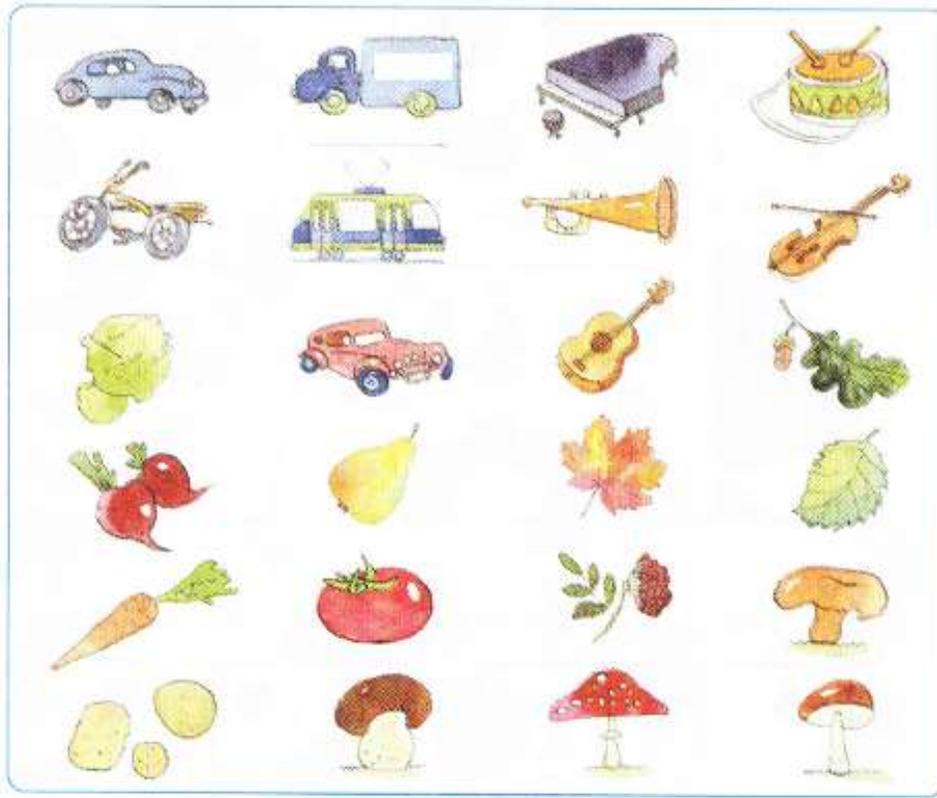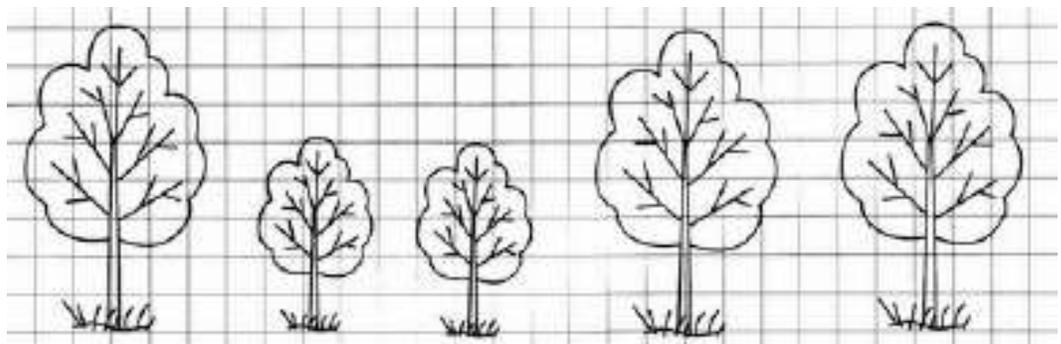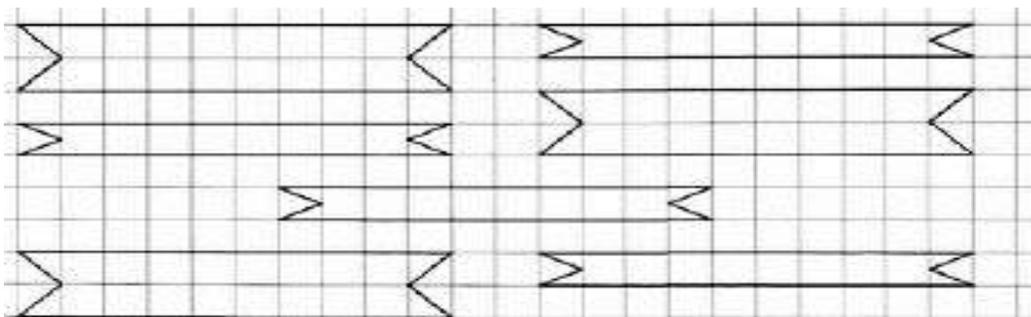

Problem 2
Color in the short scarves blue and the long ones red.

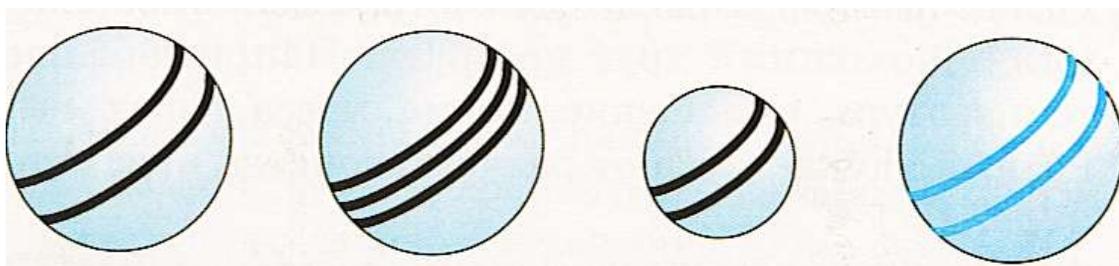Color in the tall trees yellow, and the short trees green.

Color in the wide ribbons blue and the narrow ones red.

Problem 3
Which ball does not belong? Cross it out. Explain your answer.

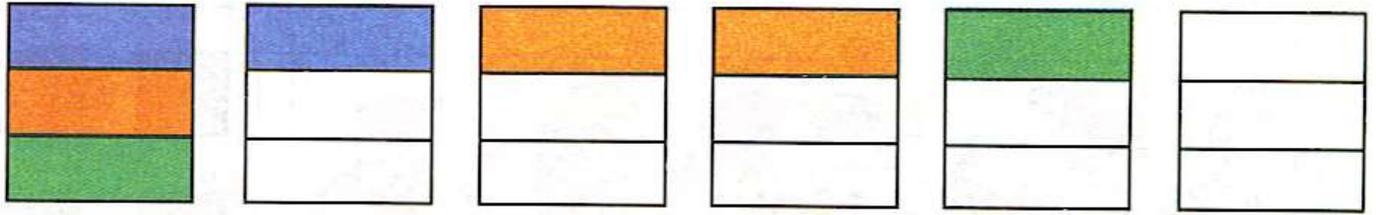**Problem 4** Solve the problems.
a) Kristine and Maria were competing with each other.
Kristine jumped farther than Maria. Who did not jump as far as Kristine?

b) Kristine and Joanne checked out library books. Joanne's book is thicker than Kristine's. Who has a book with fewer pages?

c) John is stronger than Eric. Eric is stronger than Steve. Who is the strongest?

Problem 5 Color in all of the possible ways, but you are only allowed to use three colors and pictures should not repeat each other.
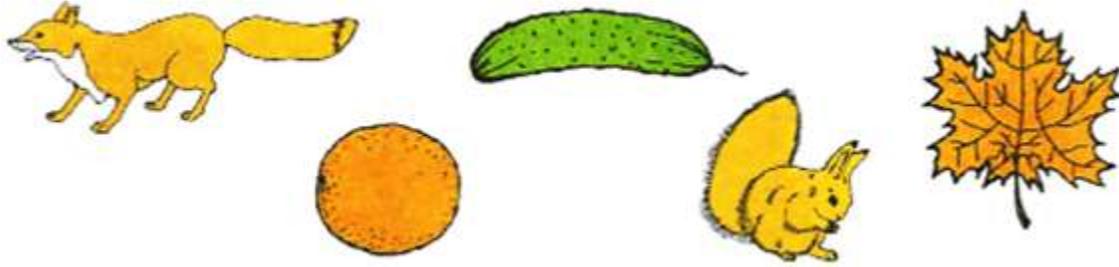

Problem 6

Draw the missing dots and write the missing digits inside the houses in such a way that the sum of the numbers in each row will be the same as the number on the roof. Solve the problems.
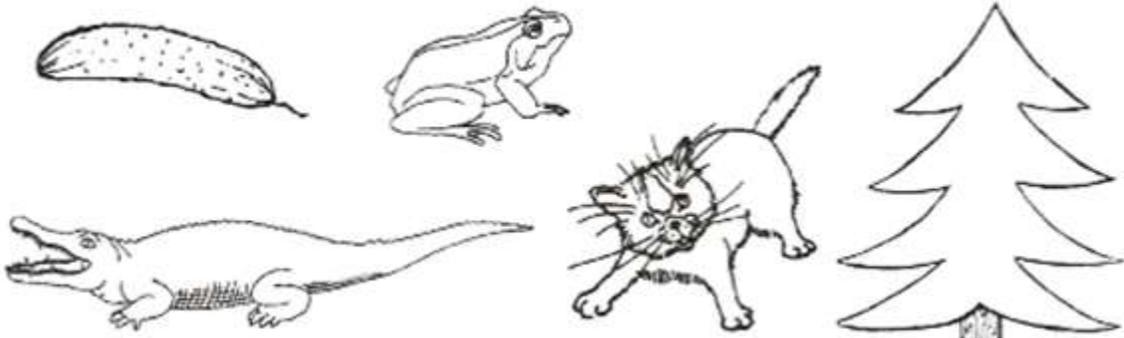

$$1 + 1 = \square$$
$$2 - 1 = \square$$

$$1 + 2 = \square$$
$$3 - 2 = \square$$

$$1 + 3 = \square$$
$$2 + 2 = \square$$
$$4 - 1 = \square$$
$$4 - 2 = \square$$

$$1 + 4 = \square$$
$$2 + 3 = \square$$
$$5 - 2 = \square$$
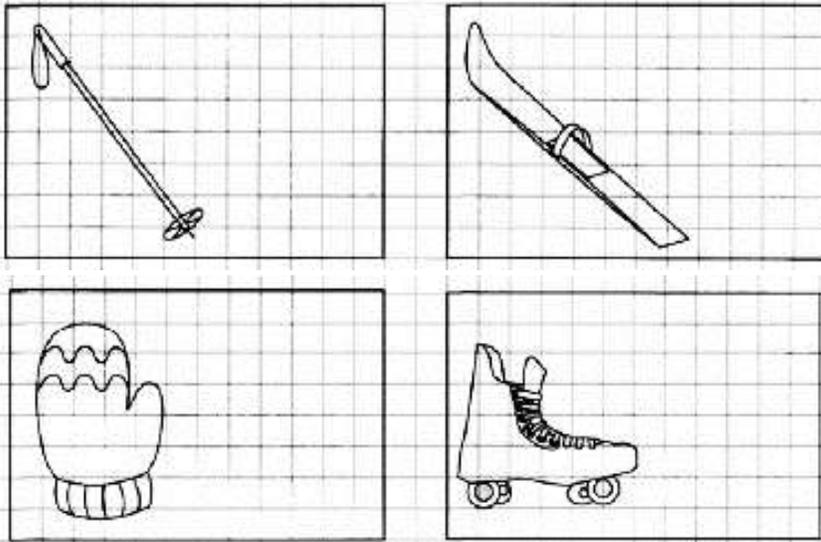$$5 - 4 = \square$$

Problem 7

a) Cross out that does not belong.

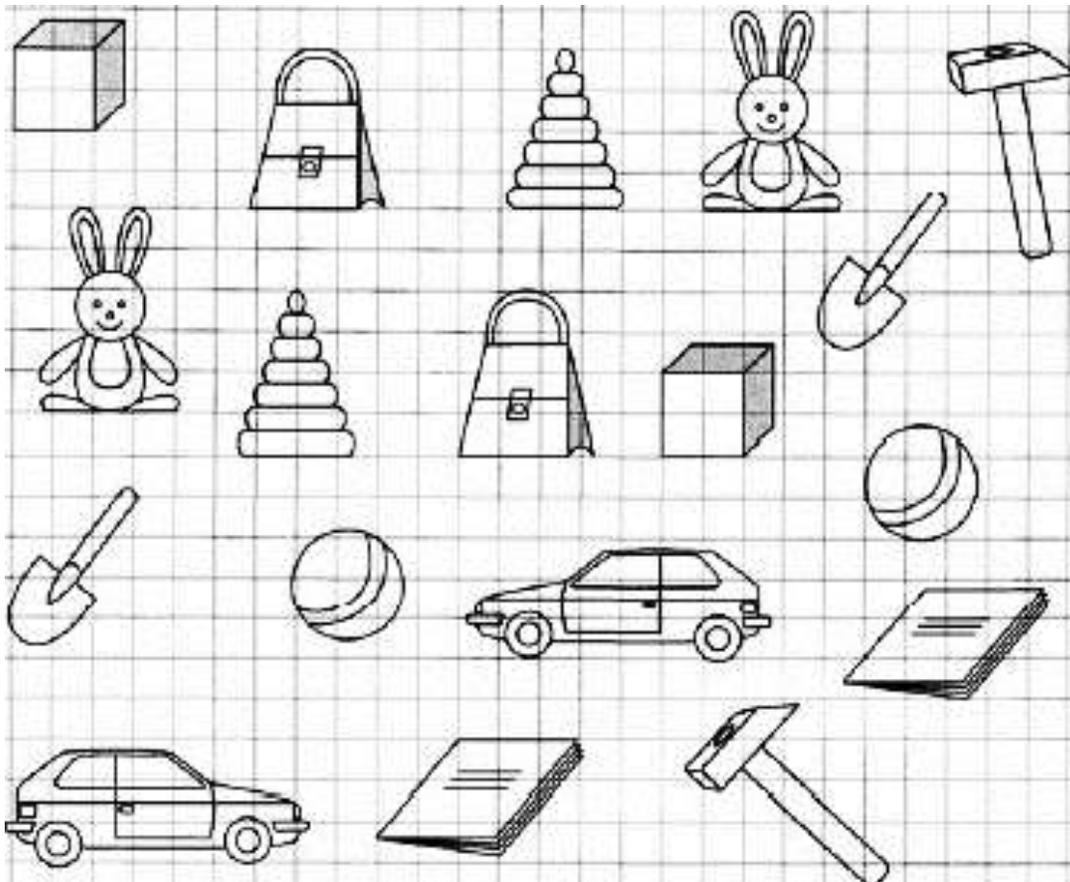b) Color the pictures and cross out that does not belong.

c) Continue the pattern.

Homework 5

Problem 1   Solve the problems and create your own.

Find mistakes and correct them.

M A + M A = M A M A   yes,no

   yes,no

   yes,no

Does the bird have the same color of the beads as the boy?   yes,no

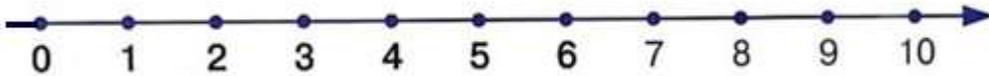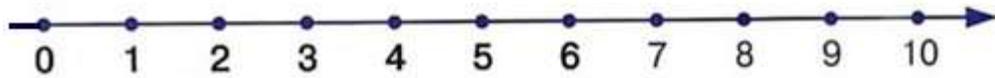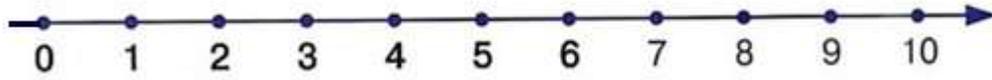## Problem 2   Draw another object to create a pair.

Color in similar objects the same color.

Problem 3   Add or subtract using the number line. *Dear Parents! We are using a number line to solve the number sentences below. It is still hard for your children's eyes to jump from a number line to a problem. Please help your child as follows: As your child places a pencil on the first number from the problem's question, dictate the further steps of the problem. Remind your child that "+" is moving forward and "-" is backward. Thanks!*
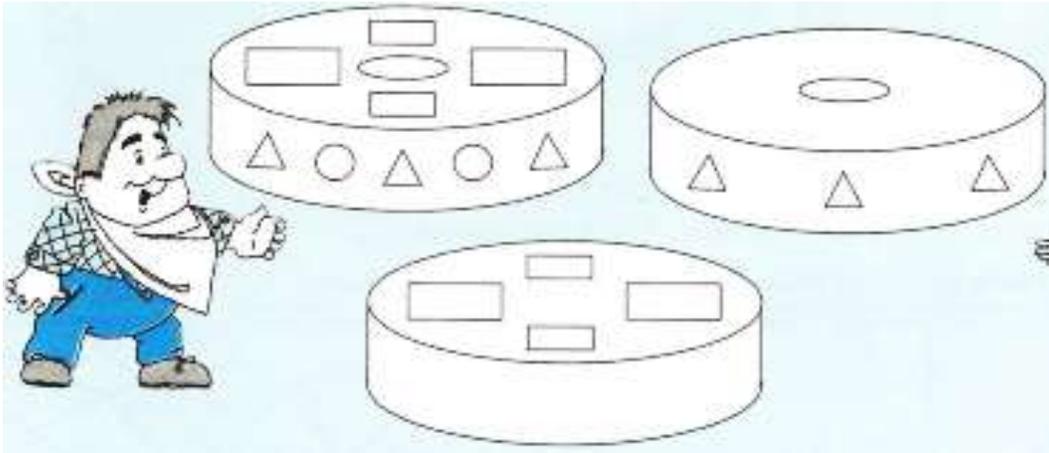
$6 + 2 =$	$2 + 3 + 2 =$	$6 + 2 - 3 =$
$8 - 3 =$	$1 + 4 + 2 =$	$7 - 4 + 2 =$
$3 + 4 =$	$9 - 3 - 2 =$	$4 + 4 - 5 =$

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

Problem 4   What do these shapes remind you of? Draw new objects out of these shapes.

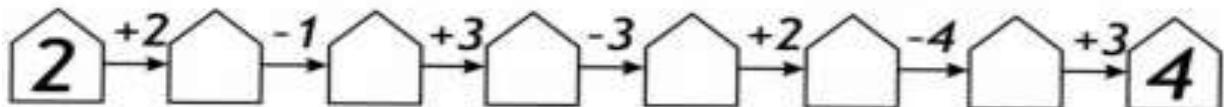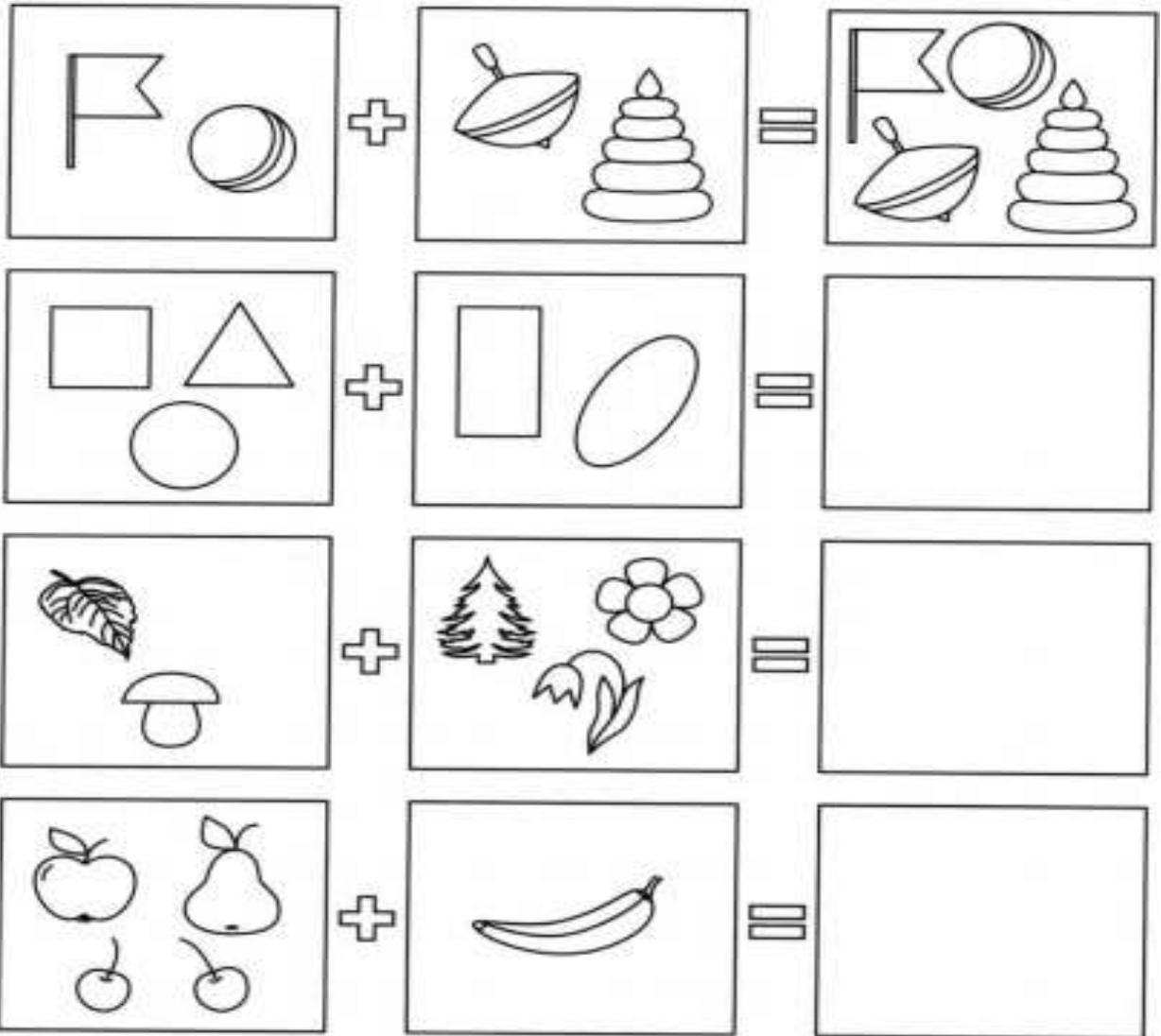Make the 3 "cakes" look the same. Draw more "decorations" and color them.

Problem 5

a) Mitchell likes to eat ice cream more than donuts. He also likes donuts more than apples. What does he like more: ice cream or apples?_____

b) We can pour more water into a casserole than into a teapot, but we can pour more water into a teapot than into a pitcher. Where is there more water: in the casserole or in the pitcher?_____

c) Once upon a time, Worm, Airplane and Bicycle decided to race with each other. It happened in our story that Worm made it to the finish line before Bicycle and Bicycle made it before the Airplane. Who do you think is faster: Worm or Airplane?_____

d) Please ask your parents to help you make your own math story. Come up with a math problem and draw it in the space below:
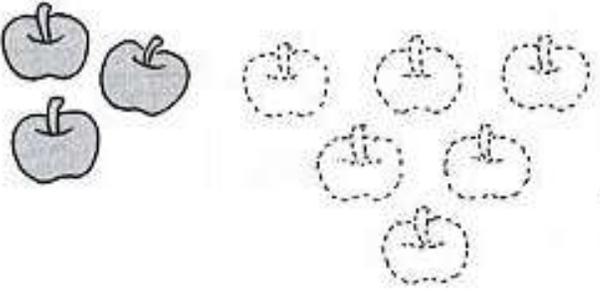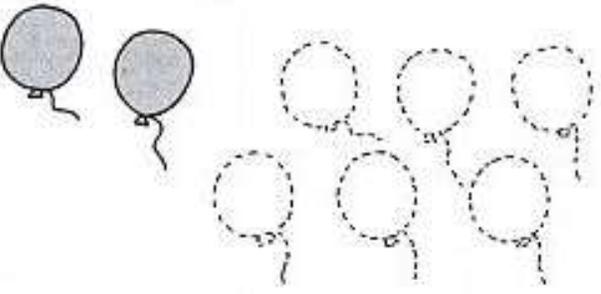
PICTURE:

Problem 6

Draw the answer in the empty boxes.

The bottom row shows a sequence of connected shapes:

$2 \xrightarrow{+2} \quad \xrightarrow{-1} \quad \xrightarrow{+3} \quad \xrightarrow{-3} \quad \xrightarrow{+2} \quad \xrightarrow{-4} \quad \xrightarrow{+3} 4$
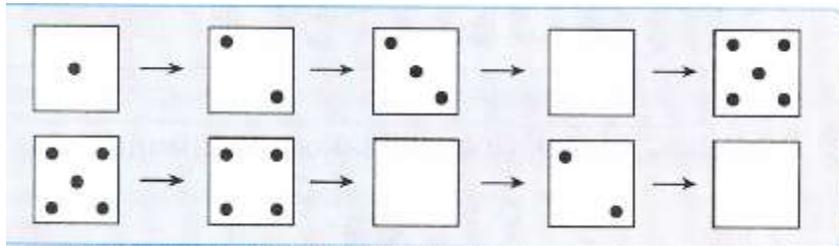
Problem 7 Write the correct numbers in the boxes.
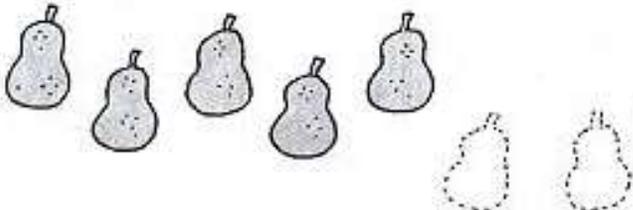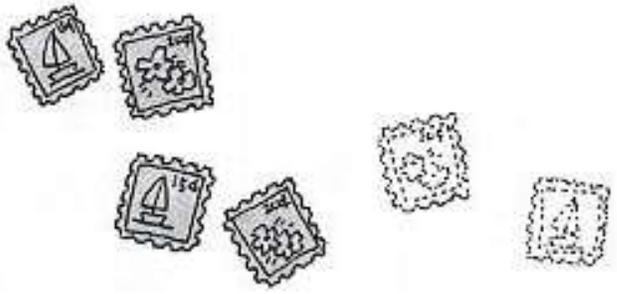
Homework 7

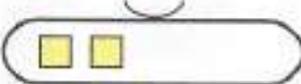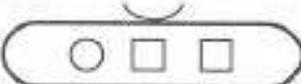**Problem 1** Find the pattern and finish filling in the boxes.
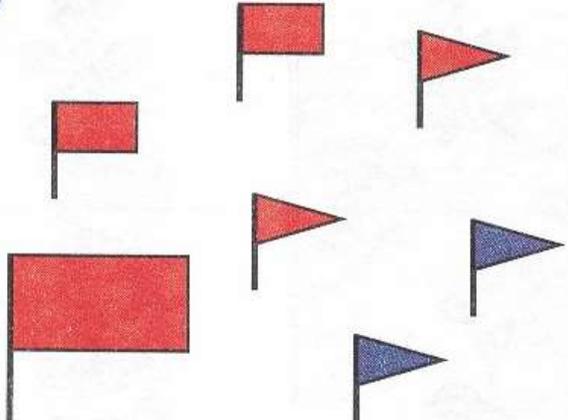

Find the object that does not belong in each row.

a)

b)

Color the stacking pyramid's rings according to the pattern rule.

Put "+" or "-" signs into the blue boxes to make true sentences.

Group flags by color and write letters in the blank boxes. R is for -red, B (blue), F(all flags).

$$R + B = F$$
$$B + R = \boxed{}$$
$$F - R = \boxed{}$$
$$F - B = \boxed{}$$

Whom is after whom in the line?

Problem 2

Add apples in such a way that we have the same amount in each bowl. Color the apples red, yellow and green in such a way that each bowl of apples do not look the same.
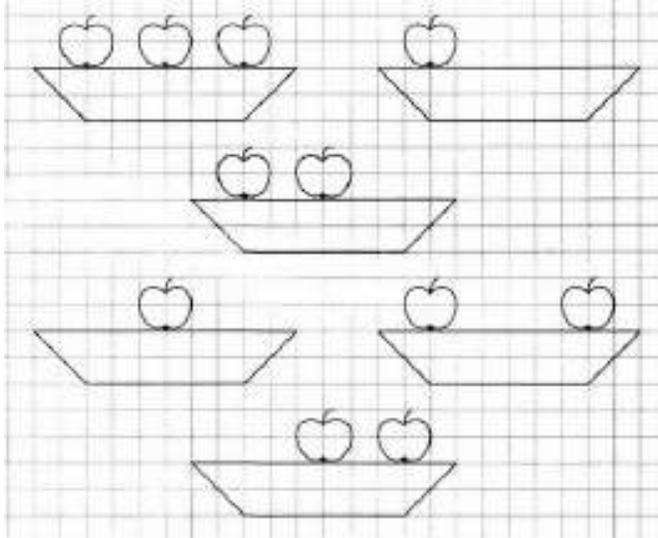
Draw the missing objects according to the pattern.
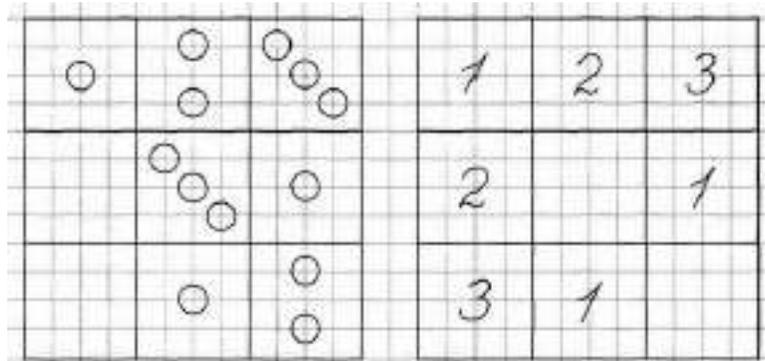
Problem 3

How many triangles do you see in each picture? Write the number inside the circles.

21
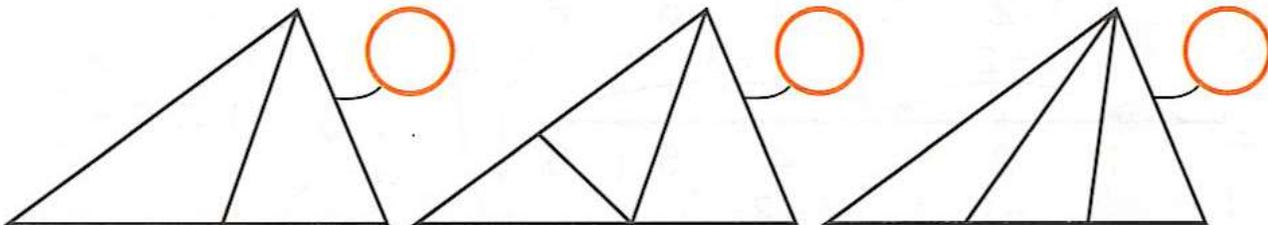
Problem 4

Put the numbers into the "windows". The sum of the "windows" numbers should be equal to the number on the roof.

Problem 5 Place the shapes in such a way that each row and each column have all three different shapes.
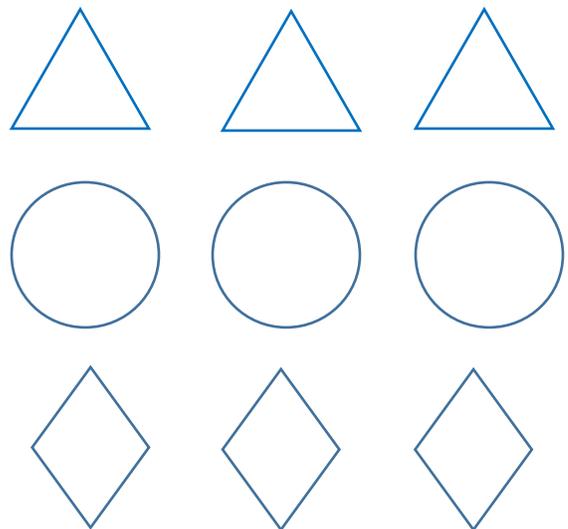
Problem 6

John, Ethan and Eric live in three different buildings on different floors. John lives in the apartment located higher than Ethan's. Ethan's apartment is higher than Eric's.
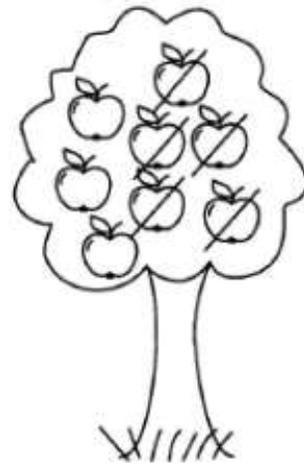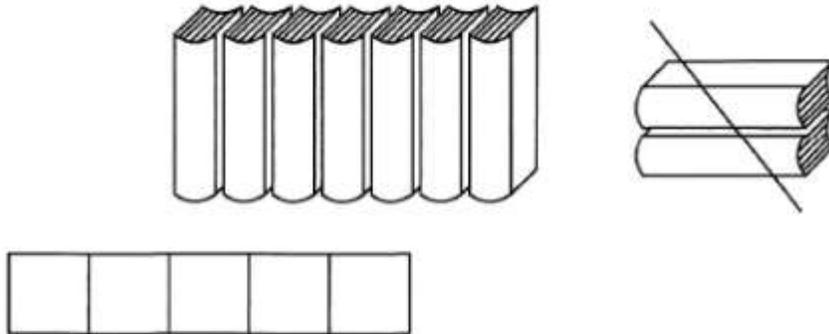
Who lives on the top floor? _____ Who lives on the bottom floor?_____

Problem 7   Solve the problems and write your solution inside the boxes below.

a) Apple tree has 8 apples. Peter picked 5 apples. How many apples are still on the tree?

b) There were nine books on the bookshelf. Anna took 2 of her favorite books to read. How many books are left on the bookshelf?

c) There were six tea cups on the dining table. Mom took away 4 cups. How many tea cups are left on the table?
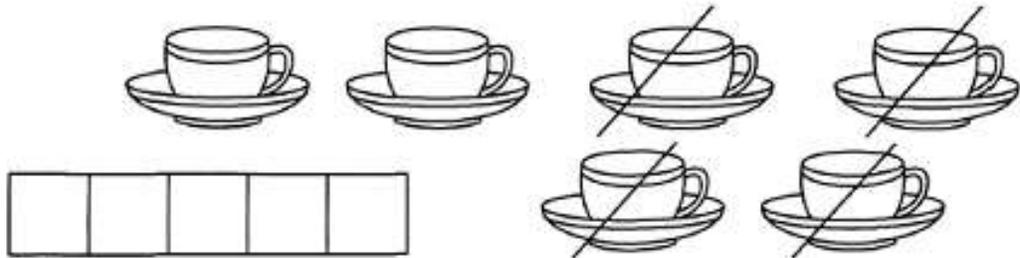
d) Nina, July, Anna went to ice-skating. Two girls were wearing hats and one girl a scarf. July and Anna were wearing different things so were Nina and July. What was each girl wearing?
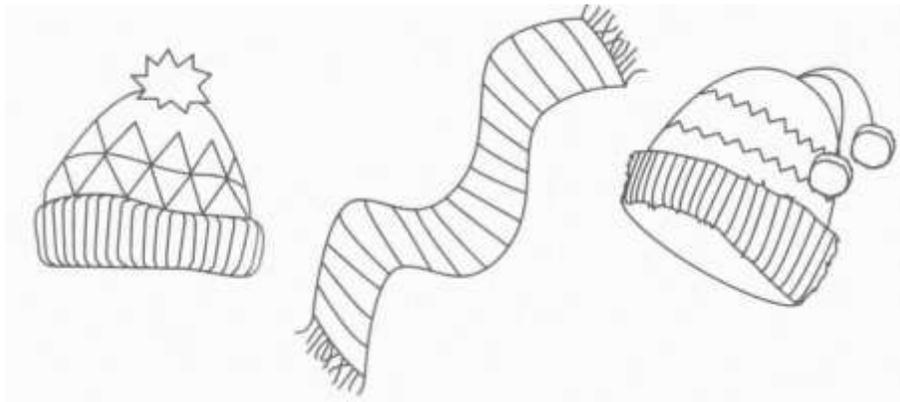
Homework 9

Problem 1

What does not belong in each row? Cross out those objects.
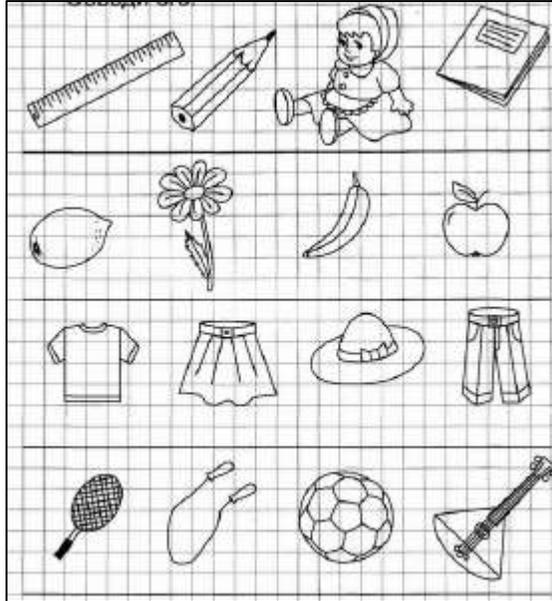
Problem 2

a) Continue the pattern:

b) Color in all of the possible ways, but you are only allowed to use three colors, and pictures should not repeat each other.
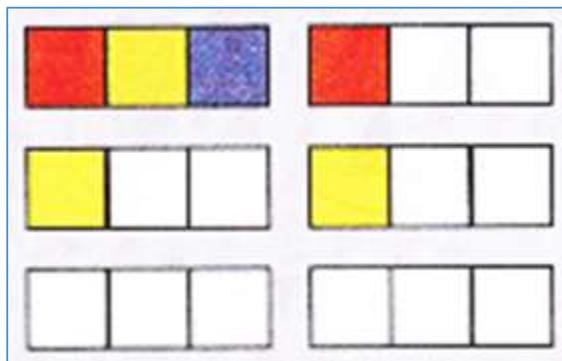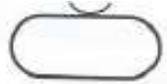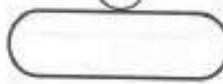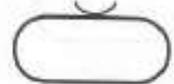

c) Make all the domino blocks look the same.
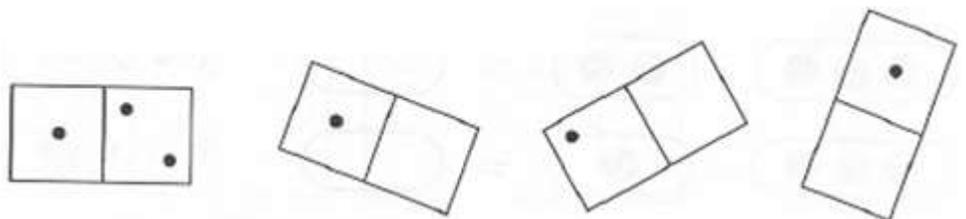
Problem 3
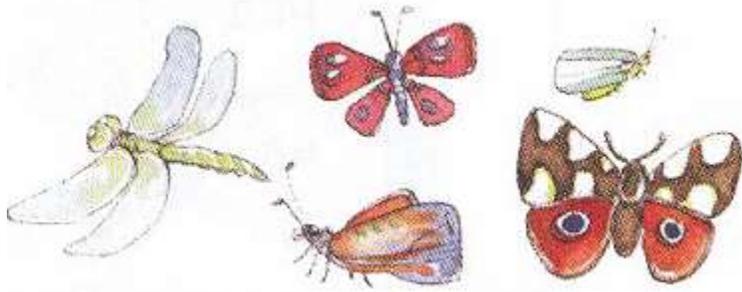Solve the problems. Draw your answers in the empty boxes. Then create your own problem and solve.

$1 + 1 = \square$

$2 - 1 = \square$

$1 + \square = 2$

$2 - 1 = \square$

Problem 4
Color in the triangles to the left from the circle - red, and the triangles to the right from the circle - blue.

Problem 5
Group insects (I). Fill out the empty blue boxes with the correct letters (B=butterfly, D=dragonfly). Make true sentences.

$B + D = I$

$D + \square = \square$

$I - B = \square$

$I - \square = \square$

Problem 6   Draw the pictures as you solve the problems below.

   a) Gardeners planted 9 pine trees and rose bushes in between them. How many rose bushes did gardeners plant?
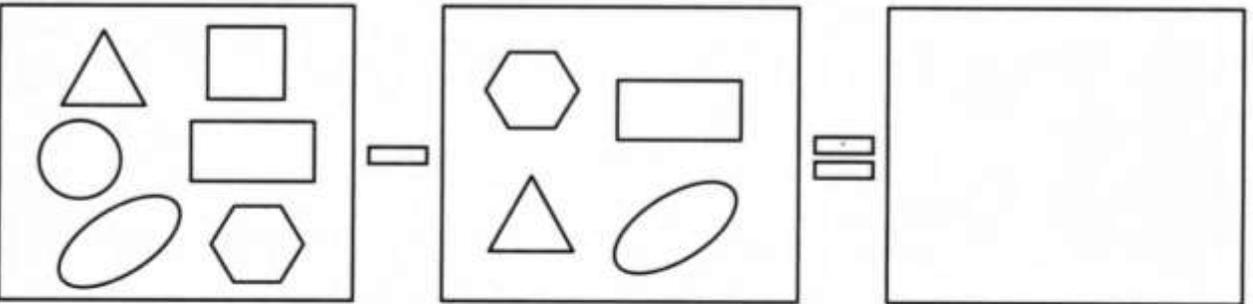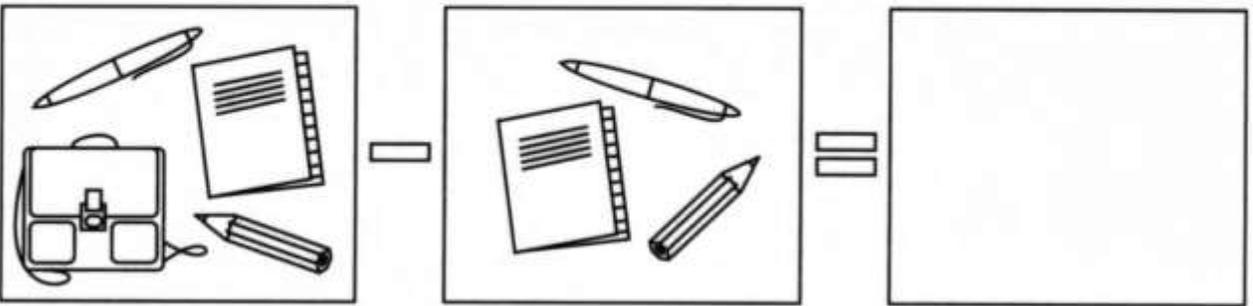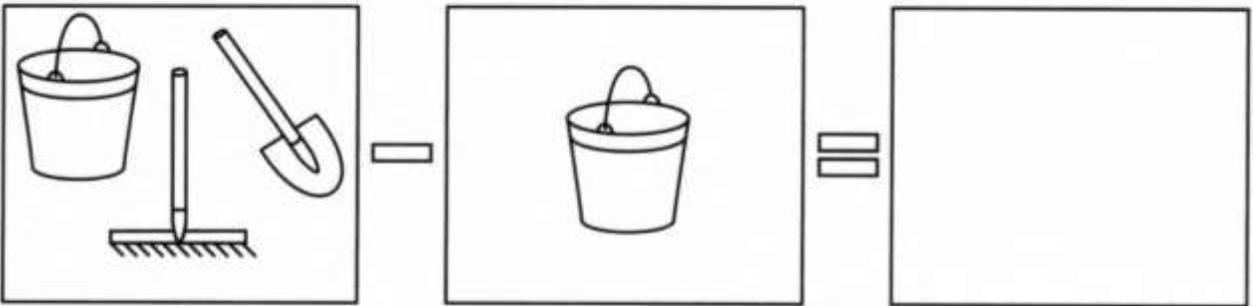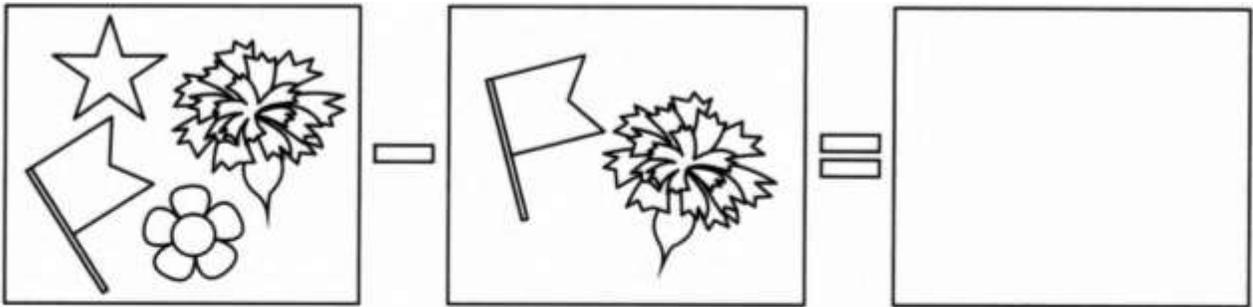
   b) If a bicycle wheel has 8 spokes how many spaces are there between the spokes?

   c) This is Alex. He want to give Mary and Anna balloons. Color in the balloons if Alex is holding the red balloon in his right hand and the blue one in his left hand. Guess who Mary is and who Anna is.
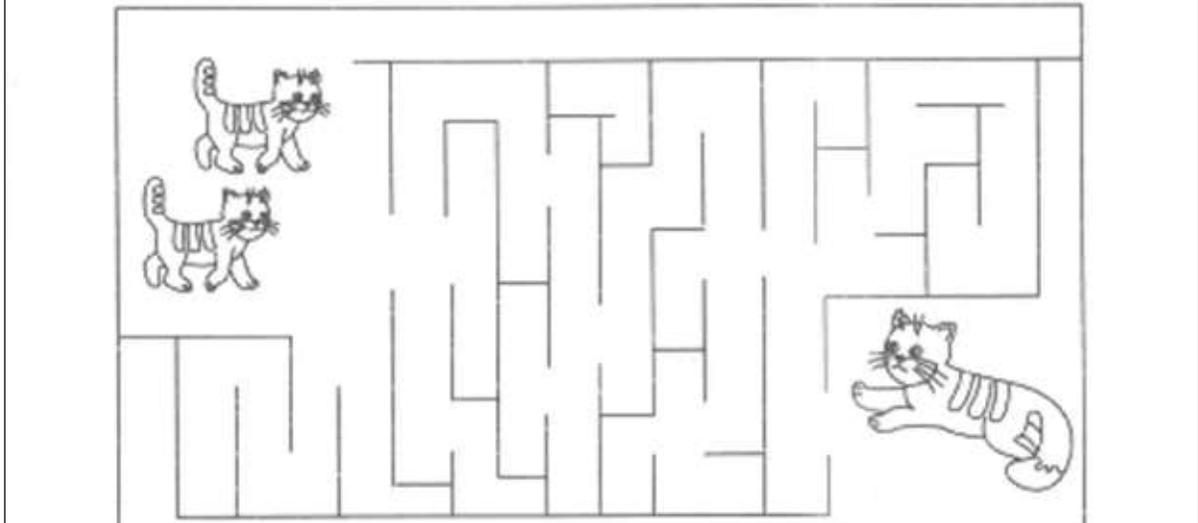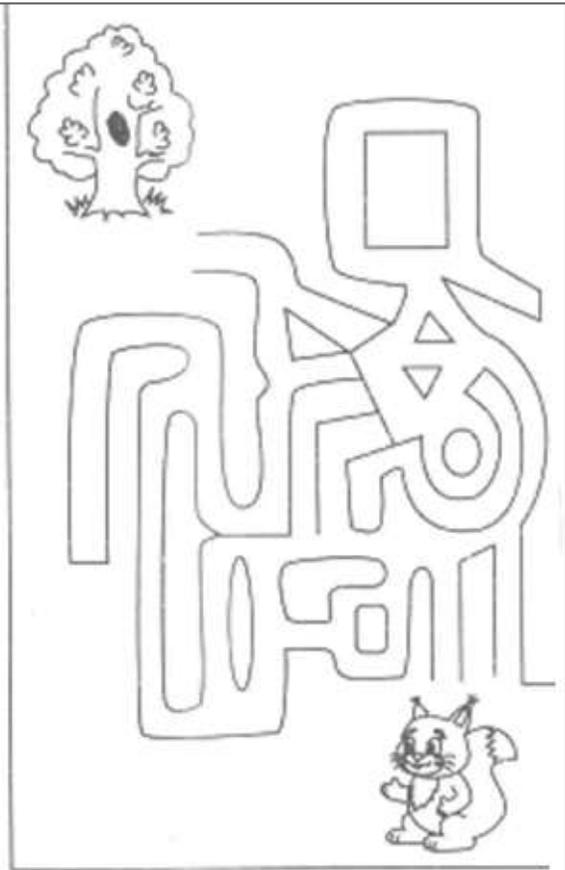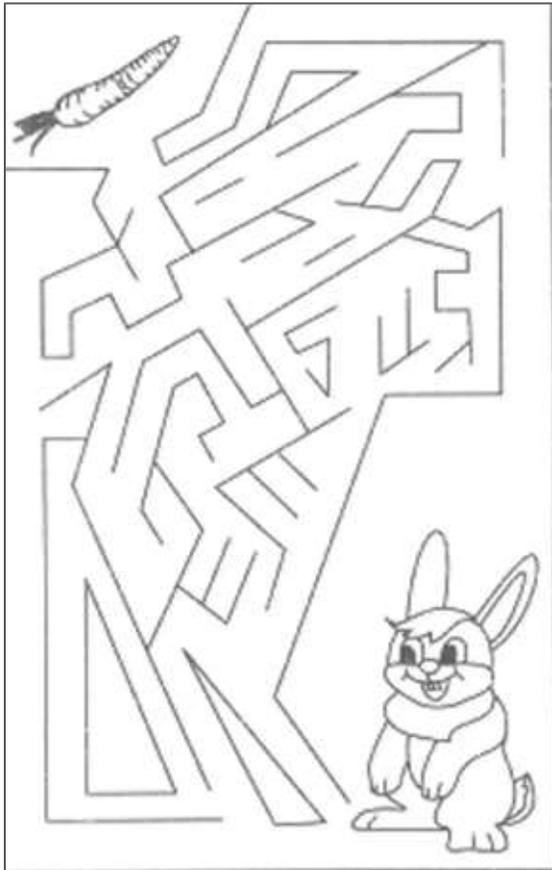
Mary is holding an apple in her right hand (color in Mary's apple green) and Anna is holding an apple in her left hand (color in Anna's apple in red. Write the girl's names in the boxes below the girls.
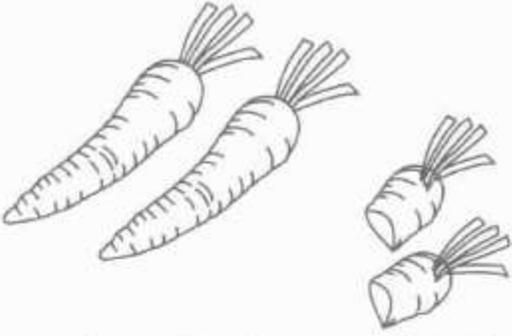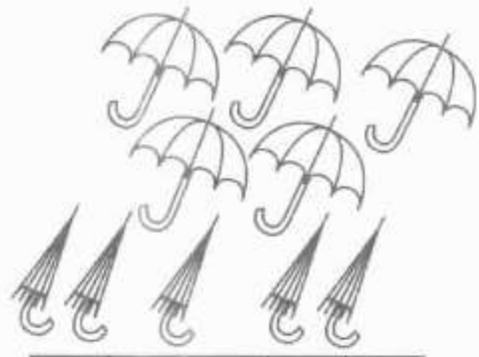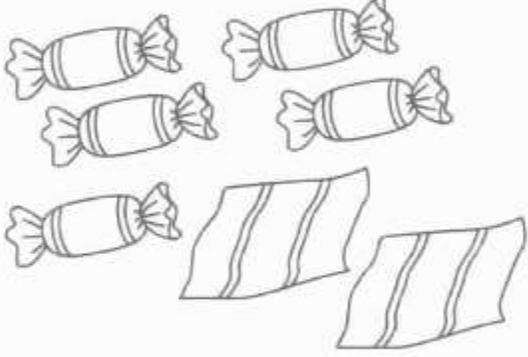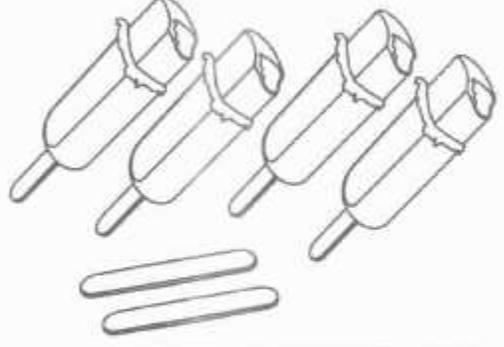
Problem 7   Solve the problems. Draw the solutions.

$$4 \xrightarrow{+1} \bigcirc \xrightarrow{-2} \bigcirc \xrightarrow{+4} \bigcirc \xrightarrow{-2} \bigcirc \xrightarrow{+3} \bigcirc \xrightarrow{+2} 10$$

Problem 8 Color in the picture according to the color scheme.
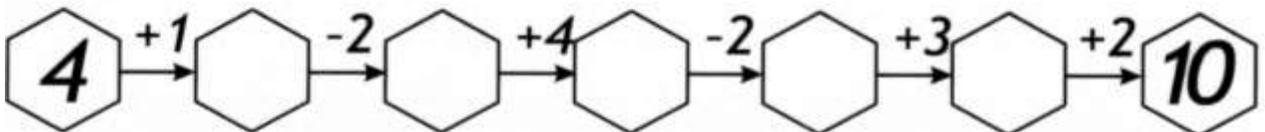
Problem 9 Solve the mazes.

Problem 10 Create the number sentences based on the pictures. Record solutions.

	−		=	

	−		=	

	−		=	

	−		=	

	−		=	

	−		=	

Homework 11

Problem 1

Fill in the numbers in the boxes to get 10.

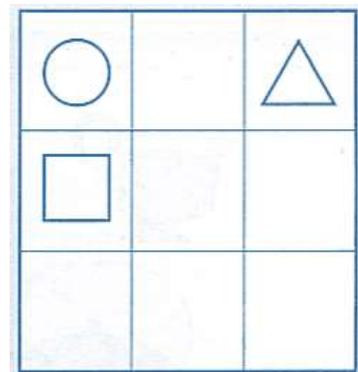| | + | 2 |
8	+	
	+	0
7	+	
1	+	

10
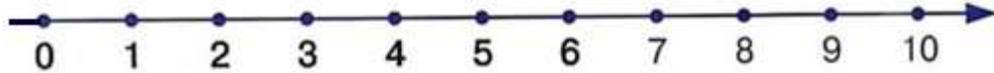
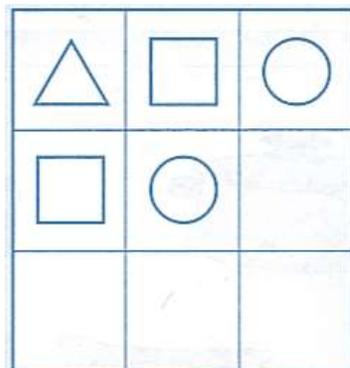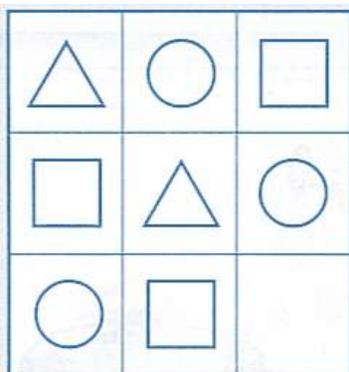| 3 | + | |
	+	6
	+	5
9	+	
	+	4

Problem 2   Find similarities. (size, color, shape.)
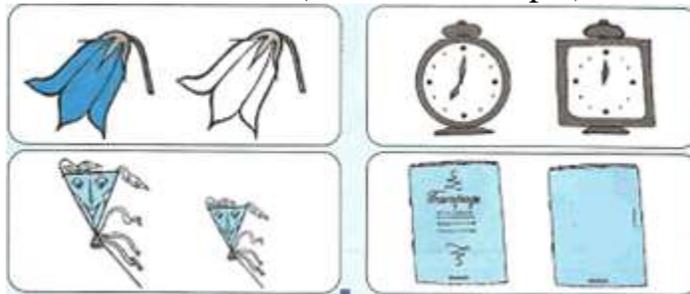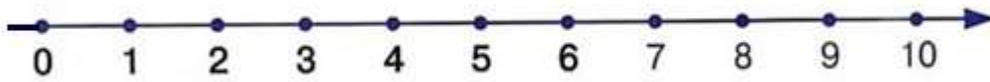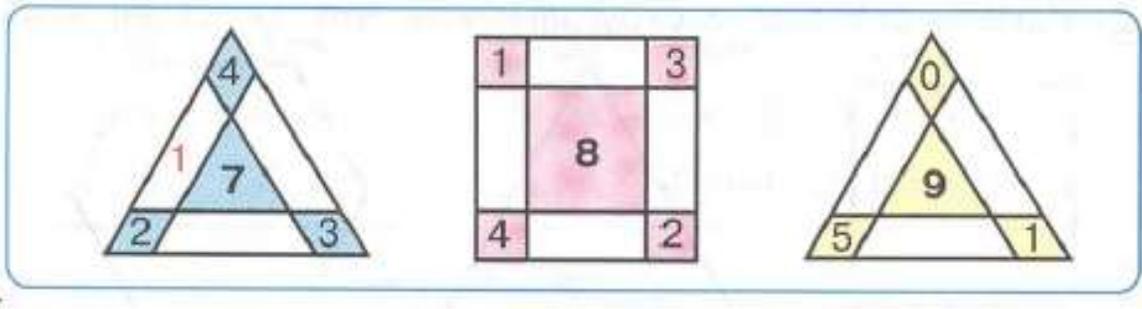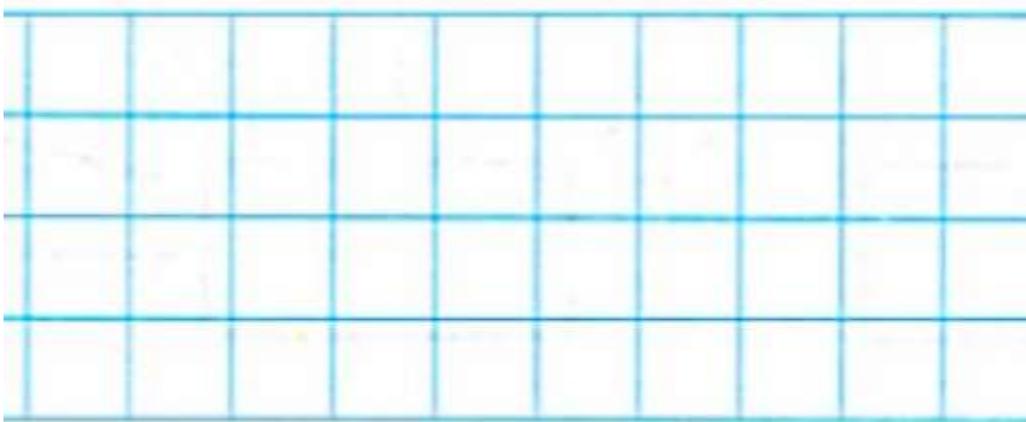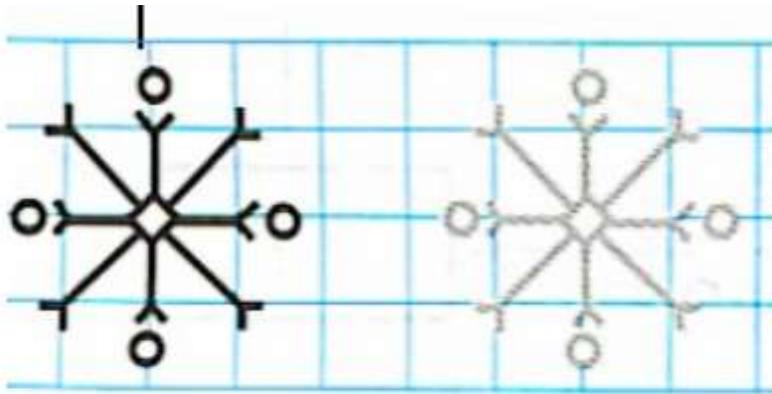

## Problem 3   Guess what is missing in each empty box. Draw in these shapes and complete the pattern.

Problem 4 Solve the problems. The sum of the numbers on the sides have to be equal to the number in the center of the shape.

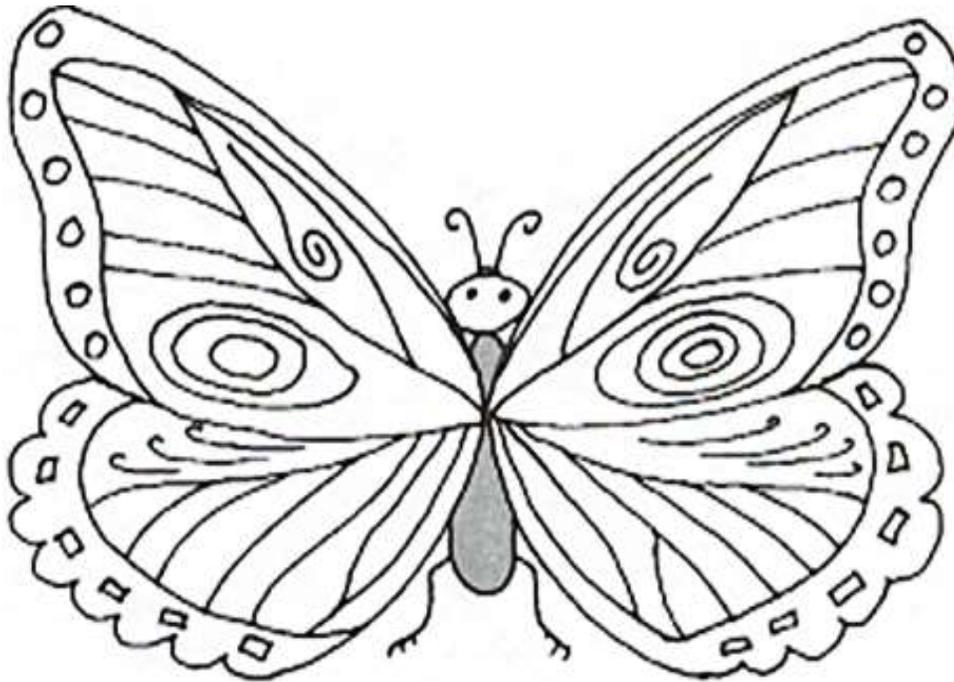**Problem 5** Trace a snowflake. Try to draw the snowflake.

Problem 6 Fill out the empty boxes with correct numbers. What numbers are supposed to be on the ornaments? Solve it.
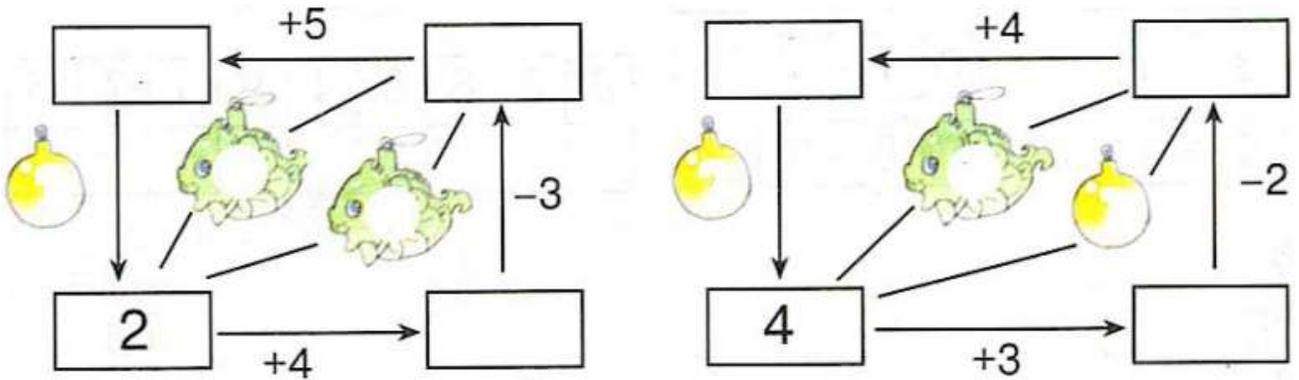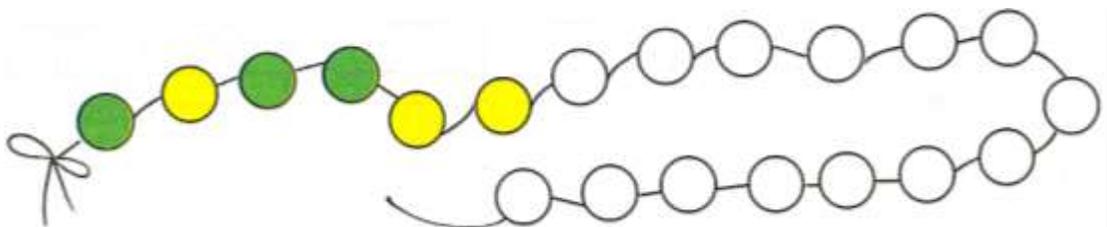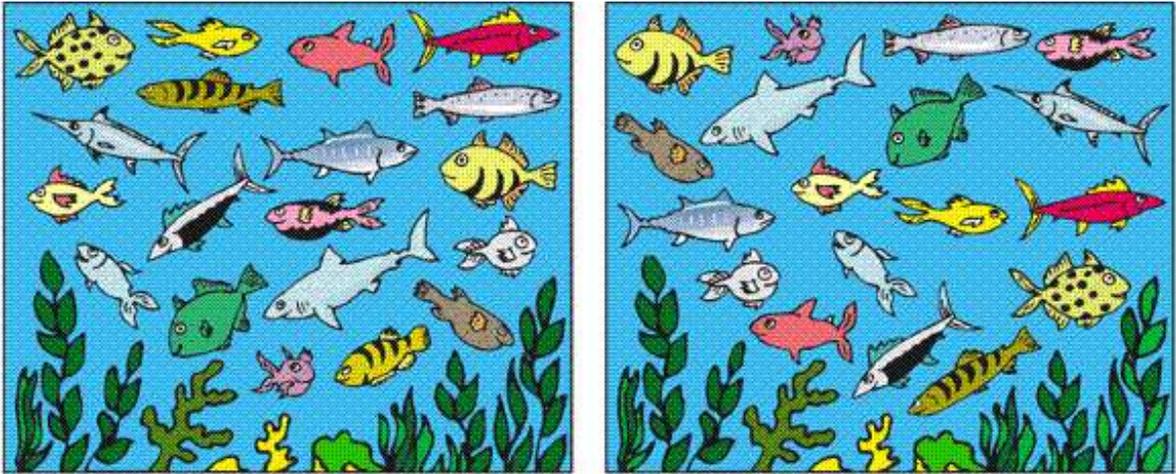

Problem 7
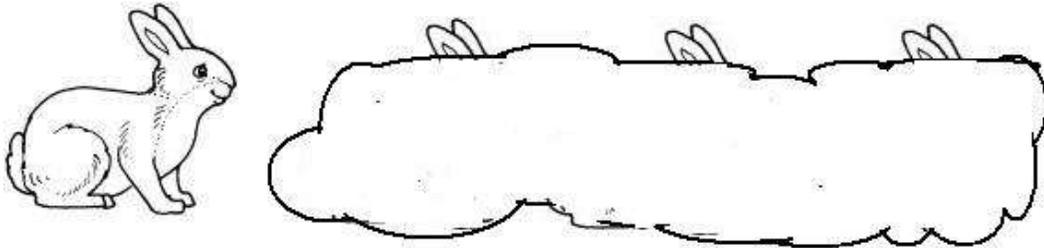Find 7 differences in this butterfly.

Problem 8
Continue the pattern.

Problem 9 One fish was taken away from the second aquarium. What fish was it? Circle.
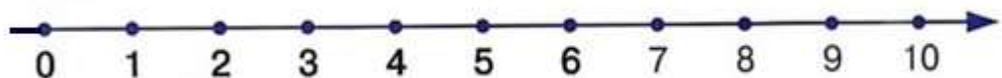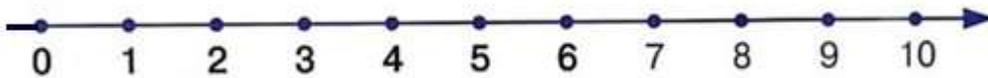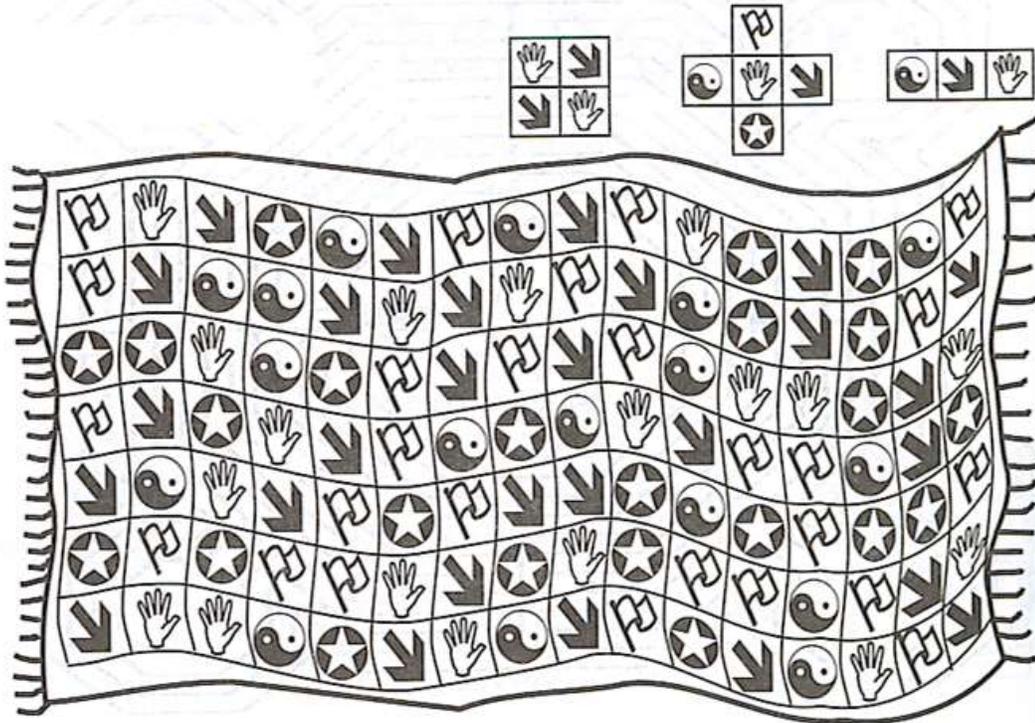
Problem 10   How many bunnies are hiding?

Problem 11 Add or subtract and color the ornaments according to the color number rule.

■ 1
■ 2
■ 3

3−2
2+1
3+0
6−4
8−7 2−0
5−4

■ 4
■ 5
■ 6

1+3
9−5
4+2
3+2
8−2 7−2

■ 7
■ 8
■ 9

5+3
8−1 3+4
1+6 4+4 2+7
8+1 3+6 9−1

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

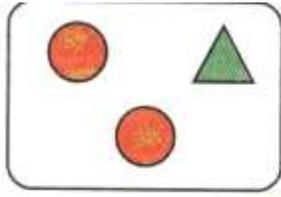**Problem 12**   Find the patterns in the picture. Color them in.

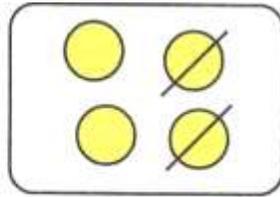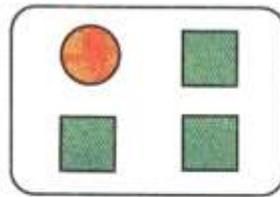**Problem 13** What number came first to the finish line? _____

Homework 13

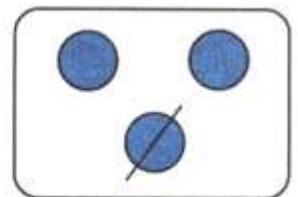**Problem 1** Look at the pictures, create the number sentences and solve them.

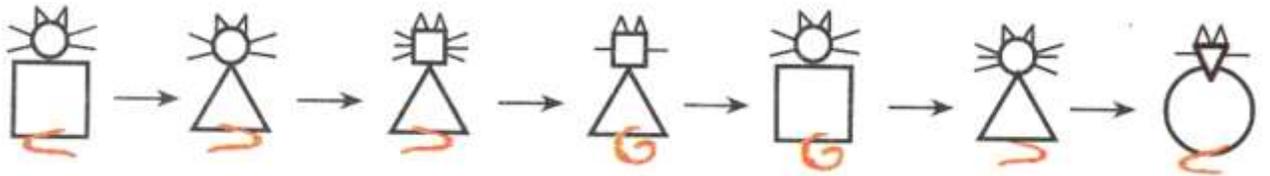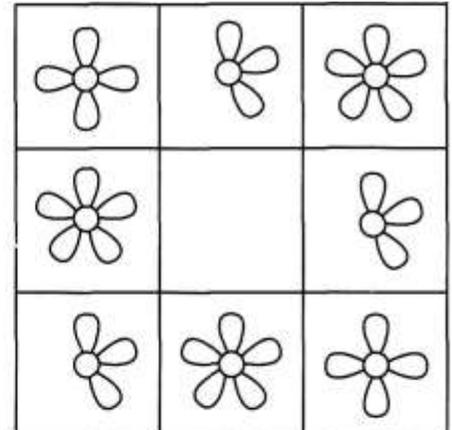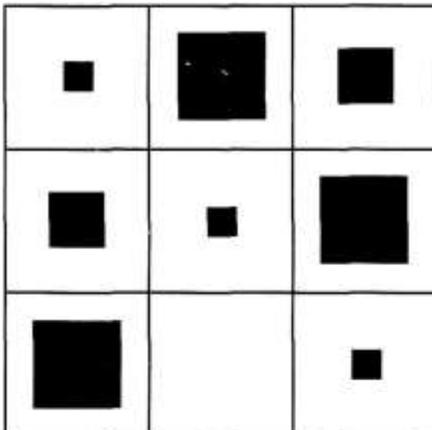$$2 + 1 = \square \qquad 4 - 2 = \square \qquad \square + \square = \square \qquad \square - \square = \square$$
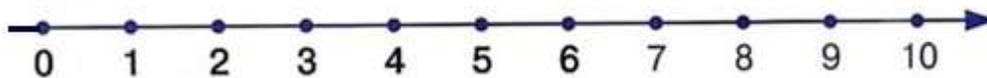
What changed? Explain.

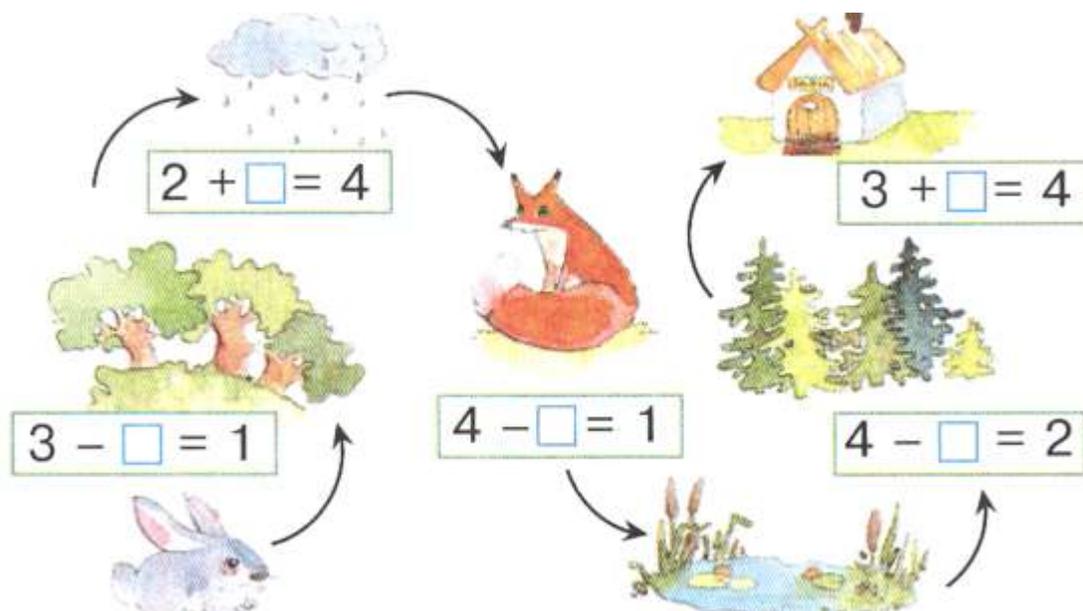Problem2 Guess what is missing in each empty box. Draw in these objects and complete the pattern.

Problem 3   Add or subtract using the number line.

$7 - 1 =$ $7 - 3 =$ $7 + 2 =$ $10 - 5 =$

$5 + 2 =$ $3 + 4 =$ $9 - 3 =$ $8 - 3 =$

0 1 2 3 4 5 6 7 8 9 10

Problem 4   Help the bunny get to his house. Fill out the empty boxes

$2 + \square = 4$

$3 + \square = 4$

$3 - \square = 1$

$4 - \square = 1$

$4 - \square = 2$

Problem 5   Put either"+" or "-"instead of the "*" to make true sentences.

$3 * 2 = 1$ $4 * 1 = 3$ $4 * 2 = 2$

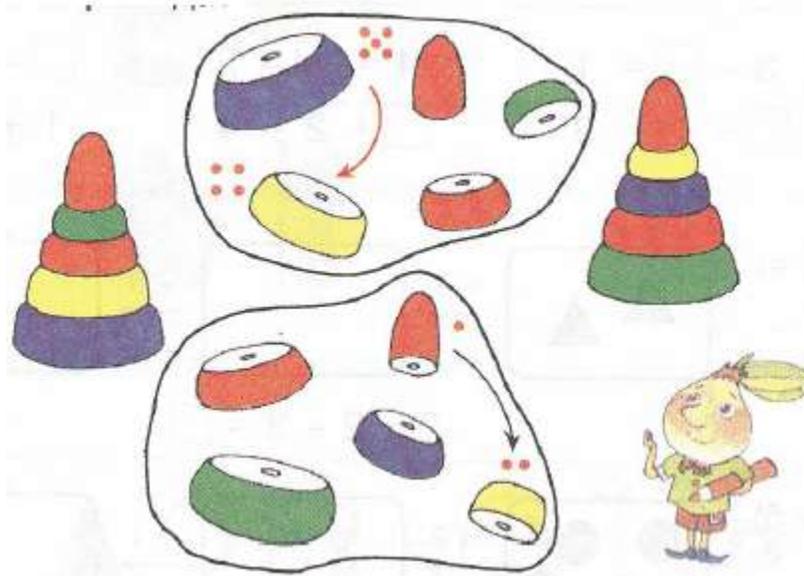$2 * 1 = 3$ $1 * 3 = 4$ $2 * 2 = 4$

Problem 6   Solve words problem.

(snow) + (ball) = (   )

(baseball) − (ball) = (   )

Problem 6
Find out which set of parts belong to each toy pyramid. Connect.

Problem 7
It's picture story time! Is it an addition or subtraction story? Create number sentences based on the picture. Record in the boxes under each picture and don't forget to write the answer.
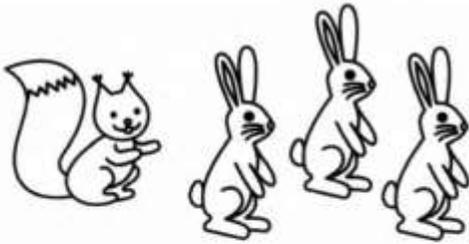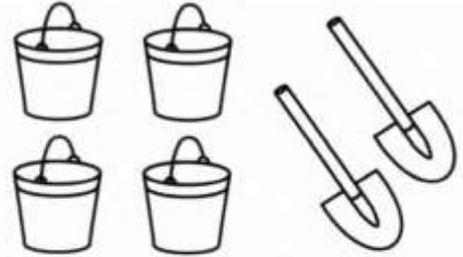

Answer:

Problem 8   Record each addition "story" in the boxes under the picture.

	+		=	

	+		=	

	+		=	

	+		=	

	+		=	

	+		=	
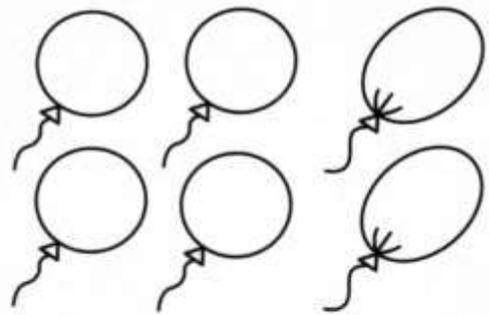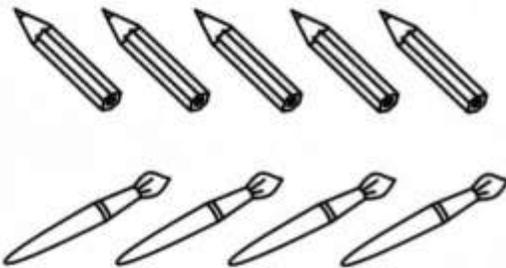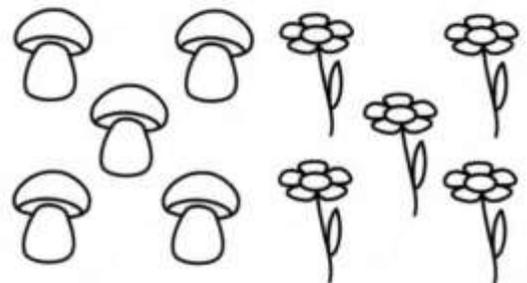
$$8 \xrightarrow{-1} \square \xrightarrow{+2} \square \xrightarrow{-1} \square \xrightarrow{-6} \square \xrightarrow{+4} \square \xrightarrow{-3} \square \xrightarrow{+5} 8$$

Problem 9

Add or subtract using the number line.

$2 + 2 = \boxed{}$ $5 + 1 = \boxed{}$ $3 - 2 = \boxed{}$ $4 - 2 = \boxed{}$

$3 + 3 = \boxed{}$ $4 + 2 = \boxed{}$ $2 + 3 = \boxed{}$ $6 - 1 = \boxed{}$

0 1 2 3 4 5 6 7 8 9 10
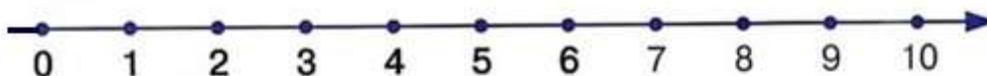
Problem 10
What does each shape remind you of? Draw new objects by using these shapes.
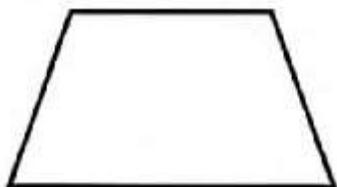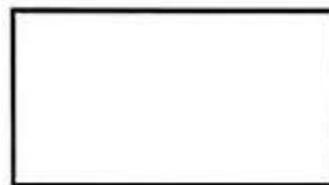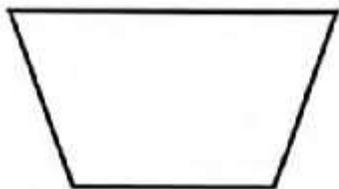
Symmetry

Tell whether or not the dotted line on each shape represents a line of symmetry.
Write **yes** or **no**.

a.

b.

c.

d.

e.

f.

g.

h.

i.

j.

k.

d.
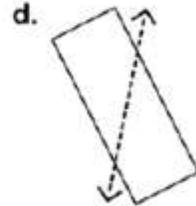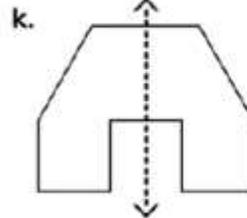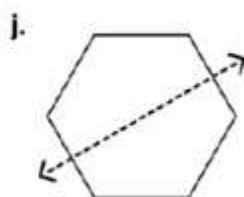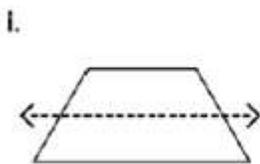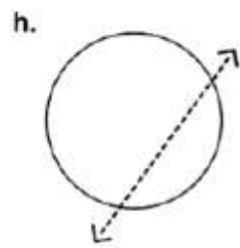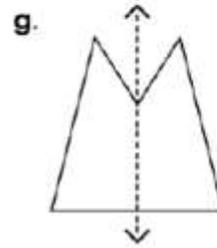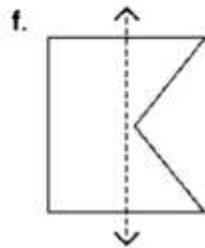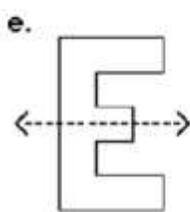
Homework 15

Problem 1 Fill out the blank boxes with letters according to the number expression in the blue ovals.

T - Triangles, Sq- squares, S- all shapes.

2 + 3		
T + Sq = S		2 + 3 = ☐
☐ + ☐ = ☐		☐ + ☐ = ☐
S − T = ☐		5 − 2 = ☐
☐ − ☐ = ☐		☐ − ☐ = ☐

B- Big, L- little, S- all shapes
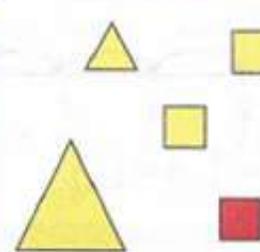
1 + 4		
B + L = S		1 + 4 = ☐
☐ + ☐ = ☐		☐ + ☐ = ☐
S − B = ☐		5 − ☐ = ☐
☐ − ☐ = ☐		☐ − ☐ = ☐

Complete the number sentences. Create new ones <u>according to the picture</u>.

$4 + 1 = \square$ $3 + 2 = \square$

$5 - 4 = \square$ $5 - 3 = \square$
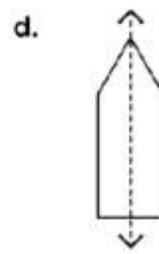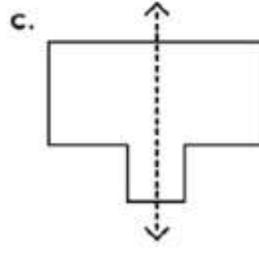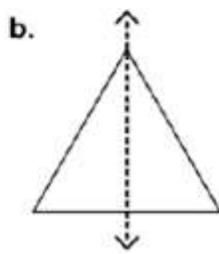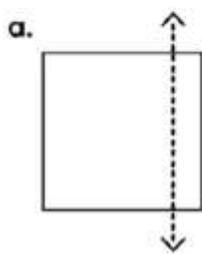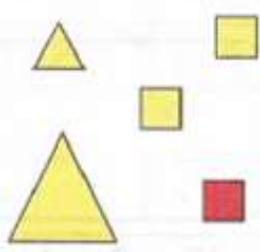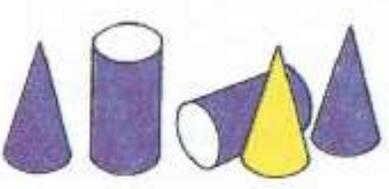
$5 - 1 = \square$ $5 - 2 = \square$

$5 - 3 + 2 - 3 = \square$

$4 - 3 + 1 + 2 = \square$

$1 + 2 + 2 - 3 = \square$

$3 + 2 - 4 + 3 = \square$

$5 - 3 - 1 + 4 = \square$

$1 + 3 - 2 - 1 = \square$

Problem 2   Complete the domino tiles with dots. Add up to the number under each tile.

4	4	5	5
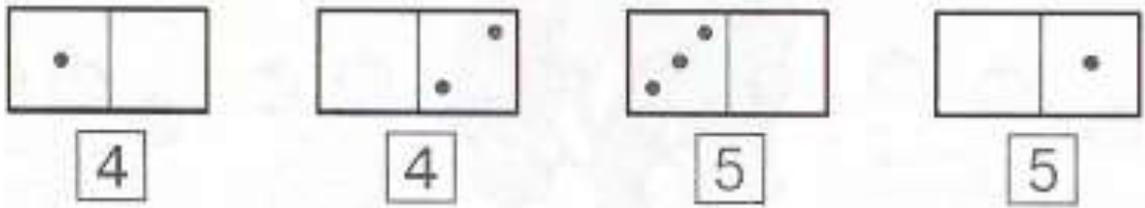
Problem 3 What is missing in the empty box? Finish the pattern. Chose the right answer out of 5 given.
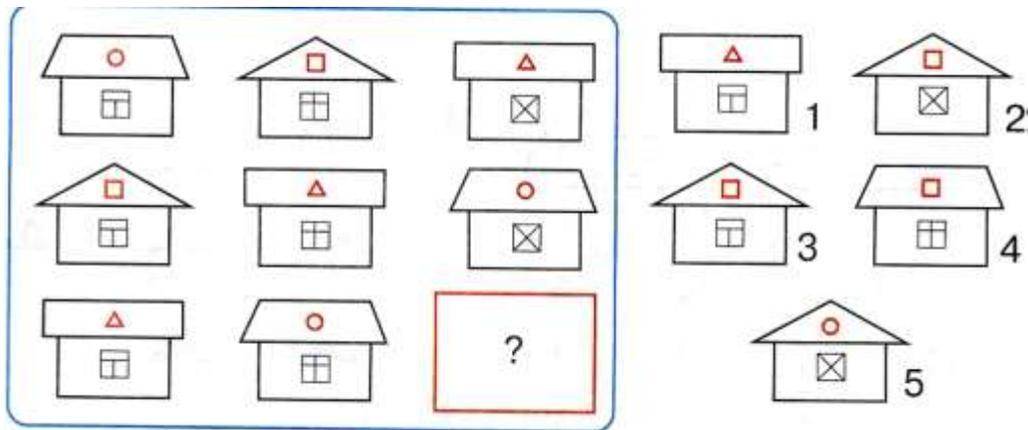
Problem 4   If you know the total number of dots, can you tell how many dots are covered by rectangles? Why do you think so?

6 _____

8 _____

7 _____
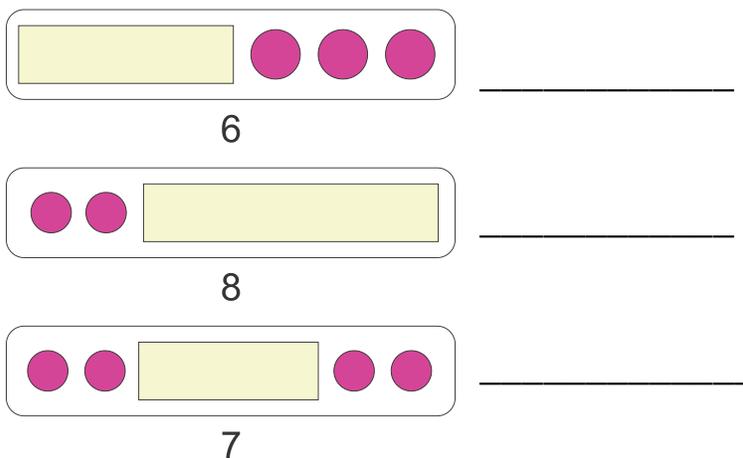
Problem 5 Make it true. Fill out the empty boxes.

☐< 9   ☐> 12   7 = ☐   ☐< 4

Problem 6 Add or subtract using the number line.

$8 - 1 =$ $9 - 3 =$ $8 + 2 =$ $9 - 5 =$

$5 + 4 =$ $3 + 4 =$ $9 - 5 =$ $6 - 3 =$
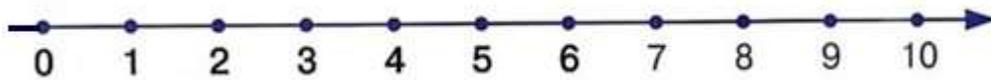
```
0   1   2   3   4   5   6   7   8   9   10
```

Fill out the blank boxes.

4 - ☐ = 1   5 - ☐ = 3   ☐ - 3 = 3

☐ + 2 = 5   ☐ + 3 = 4   2 + ☐ = 4

Problem 7 Fill up the table.

| ▲		▲ ▲ ▲	
●			
★	★ ★		
■			■ ■ ■ ■

Problem 8 Dear parents! If you have difficulties with this assignment, then try to discuss and choose a strategy first. We were doing a similar problem in class.

May you start with any circle and fill it with a number or is it better to find the starting point on the chain?

How can you find the starting point of the chain?

Maybe the starting point is in the circle without arrow point? Put the number in the starting point of the circle. Then you can continue to place numbers according to the rule that is indicated: from the SMALLER number value to a LARGER.

from small ⟶ to big number
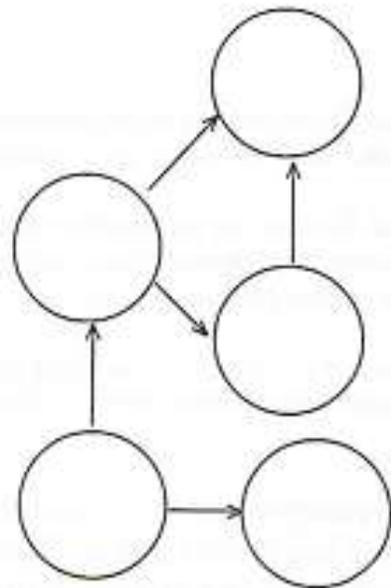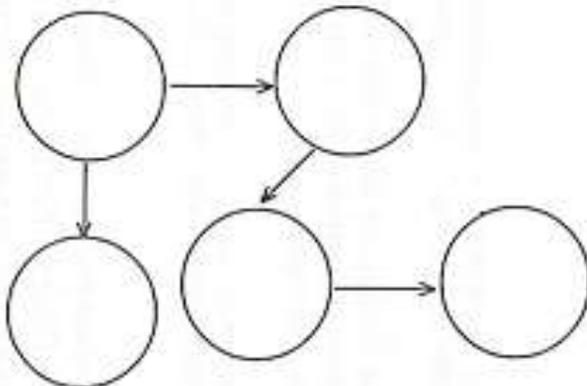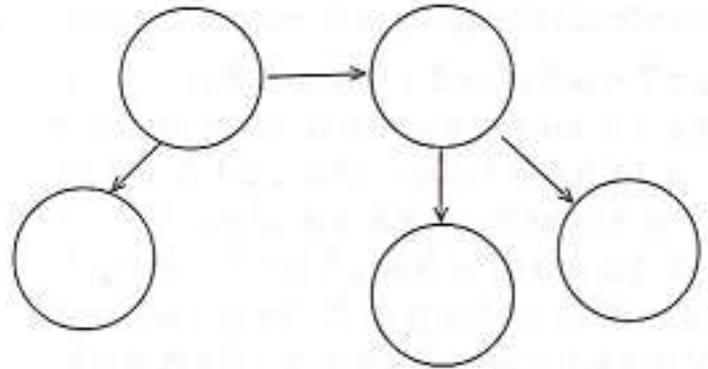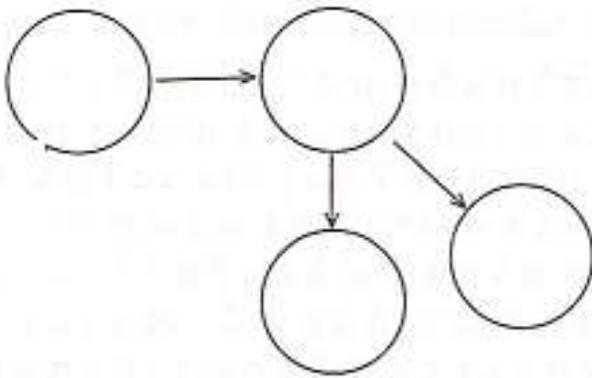
Problem 9
Color in the plane if it is:

a) under the cloud   b) above the cloud

Color in the pine tree green and the oak tree - yellow if:

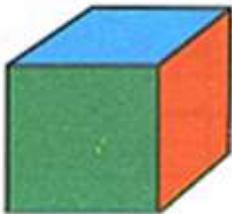the pine tree is in front of the oak tree   the pine tree is behind the oak tree
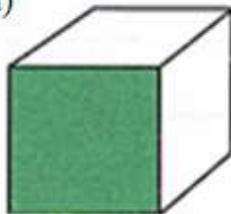
Problem 10 This cube has the same color on opposite sides. Finish coloring in each cube if the cube is placed:

a) on the red side   b) on the blue side

a)   b)