1 This bird likes to eat fish. What is the name of this bird?

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

602	819	67	516	135

(N)   (H)   (O)   (R)   (E)

2 Write expressions corresponding to each word problem.

There are 3 marbles in a red bag and 5 marbles in a green bag. How many marbles are in both bags?

_____

R ——————————
G ————
}

There are **w** marbles in a red bag and 5 marbles in a green bag. How many marbles are in both bags?

_____

R ——————————
G ————
}

There are **w** marbles in a red bag and **m** marbles in a green bag. How many more marbles are in the red bag?

_____

R ——————————
G ————
}

There are 12 marbles in a red bag and **m** marbles in a green bag. How many more marbles are in the red bag?

_____

R ——————————
G ————
}

There are **w** marbles in a red bag. In the green bag, there are 5 marbles less than in the red bag. How many marbles are in both bags?

_____

R ——————————
G ————
}

Lesson #12 is a quiz and games and not in the book

3

Little Joe picked 6 apples from the apple tree. Foxy Tail picked 9 apples from the apple tree.
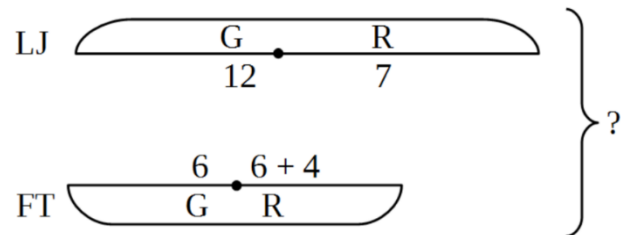
Which questions can you ask for this problem?

How many apples did _____

How many more apples did _____

4

Little Joe picked 12 green apples and 7 red ones. Foxy Tail picked 6 green apples and 4 more red apples than green.

How many apples did Little Joe and
Foxy Tail pick altogether?

_____

LJ ⌒ G • R ⌒
          12   7   ⎫
                             ⎬ ?
          6   6 + 4   ⎭
FT ⌒ G   R ⌒

What else could you ask?

How many apples did _____

How many apples did _____

How many more _____

How many more _____

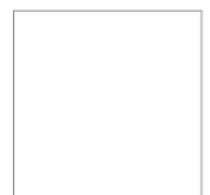How many more _____

How many more _____
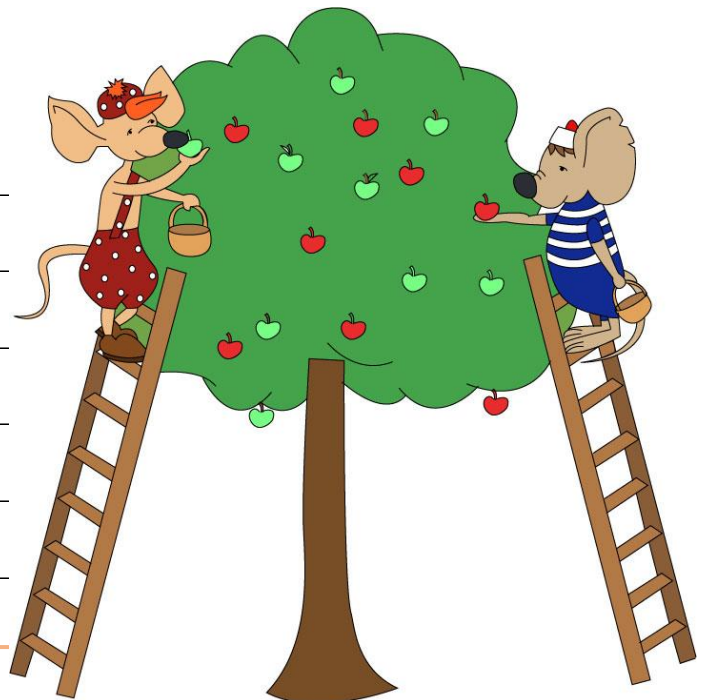
5

Draw the face of a cube that you **will not see** if you turn the cube

a) to the right

b) backward

c) forward

Algorithms and Programs

6 Write the order of operations in the expressions below.

$12 - 4 + 7$ $12 - (4 + 7)$ $(12 - 4) + 7$
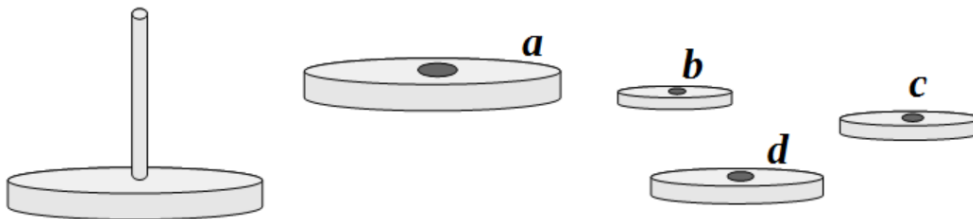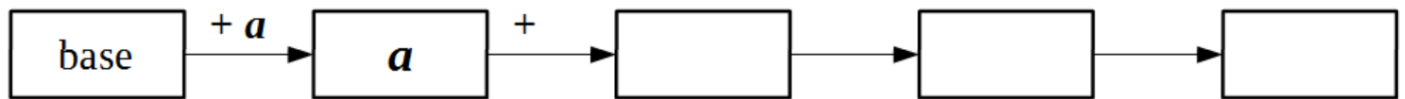
$19 - 3 + 7 - 4$ $19 - (3 + 7) - 4$ $19 - 3 + (7 - 4)$

By determining the order of operation, we are making a program or algorithm for evaluating the expression.

7 Write a program of putting up the pyramid from its parts

| base | $+\,a$ → | a | + → | | → | | → | |

a   b   c   d

| pyramid | − → | | → | | → | | → | |

Many things could be made into algorithms, for example, recipes or trips. An algorithm is a list. It lists the steps you need to take to carry out a plan. It has to be in the correct order.

8 Make a "Get Ready for School" algorithm.

Which steps of the algorithm could be switched? _____

Which steps could not be switched? _____

What steps can be removed? _____

What other steps can be added?

_____

- ___ Eat breakfast
- _1_ Wake up
- ___ Get dressed
- ___ Brush hair
- ___ Brush teeth
- ___ Prepare backpack
- ___ Make bed
- ___ Do morning exercises
- ___ Say "Goodbye"
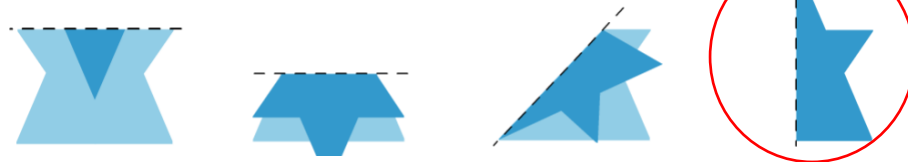- ___ Go to the school bus stop

Symmetry. Line of symmetry. Reflection symmetry.

The simplest symmetry is Reflection Symmetry (sometimes called *Line Symmetry* or *Mirror Symmetry*). It is easy to see, because one half is a reflection of the other half.

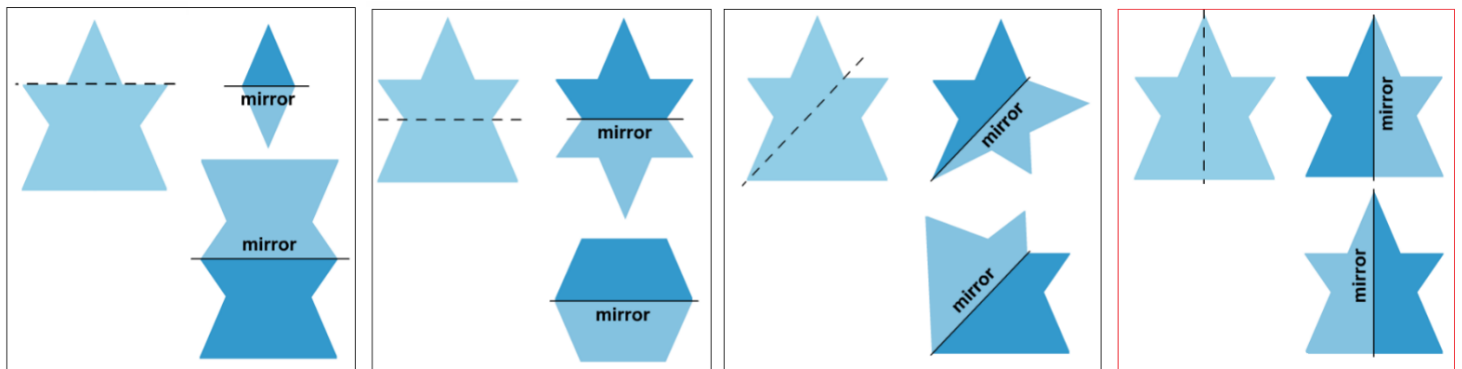What happens when you fold this shape? Choose a fold line to find out.
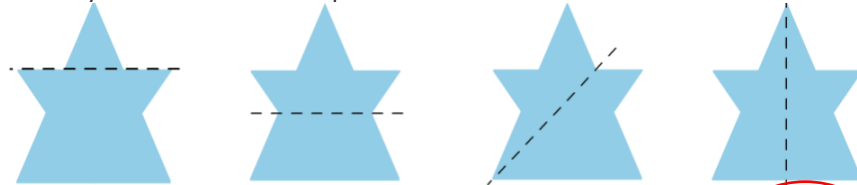
Fold across the chosen fold line:

When you fold a shape along a line of symmetry, one half fits exactly over the other.

If you put a mirror on this shape and looked at it from each side, what would you see? Choose a mirror line to find out.

When you put a mirror on a line of symmetry and look from either side, the shape looks like the original. So, this shape is **symmetrical**. It has **reflection symmetry**. It has **one** line of symmetry.

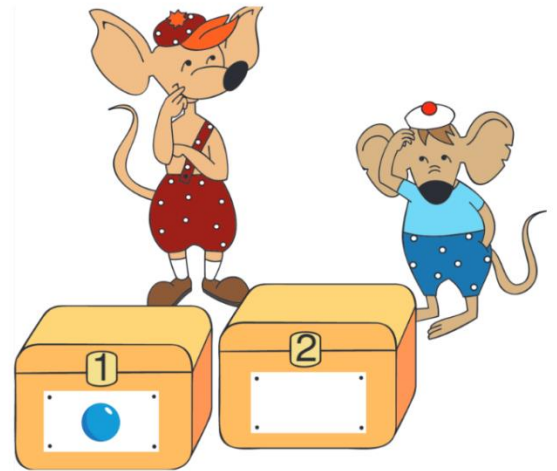| 9 | Some shapes have several lines of symmetry. How many lines of symmetry does each shape have? |
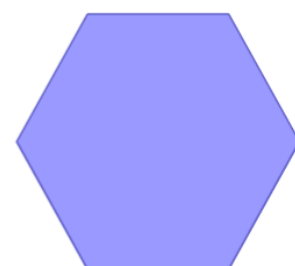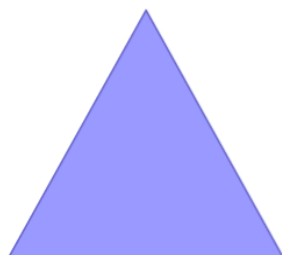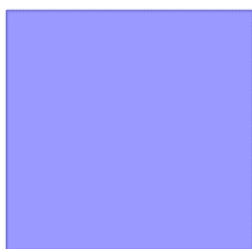
10 There are two boxes and one blue ball. The ball is in one of the boxes. Can you tell where is the ball if

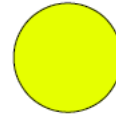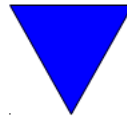   a) both tags are correct? _____

    b) both tags are incorrect? _____

Can it be that one tag is incorrect and another is not?
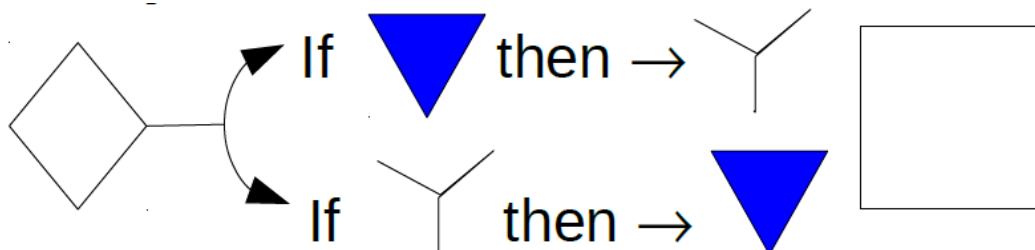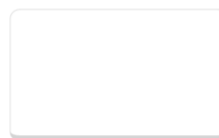
Why? _____

11 Take a look at those shapes:

Inside the diamond draw a shape about which you can say that it is not a ⬋ , not red, and not round. Afterwards perform the indicated task:
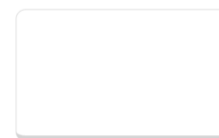
If ▼ then → Y ☐

If Y then → ▼

12 Complete the sets by adding the missing cards.

a

b

c

1

2

3

4

5