

# ANALOGY

## Contents

### 2.5 ANALOGY

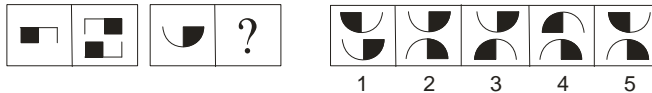
Analogy means similarity of relationship. It is a form of reasoning in which one thing is inferred to be similar to another thing in a certain respect, on the basis of the known similarity between the things in other respects. If a pair of figures exhibits some kind of relationship and another pair of figures exhibits the same kind of relationship between them, we say that the two pairs are analogous to each other.

On the basis of configuration analogy may be classified in following four types:

#### Type I: Choosing one element of a similarly related pair

In this type of test two pairs of figures are given. The figures of the first pair are related in some ways. The candidate is required to find out the relationships between the two figures of the first pair and on this basis locate the second figure of the second set from amongst figures, so that a similar relationship is established between the two figures.

**Example:**



**Answer:**

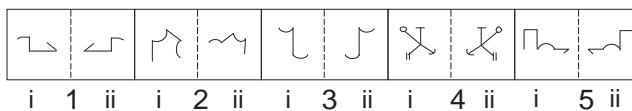
5;

The mirror image of the element appears above and the water image appears below.

#### Type II: Choosing the odd relationship

In this type of questions there are five pairs of figures out of which four pairs are related to each other in the same way. You have to locate the pair which is not related in the same way as the others are.

**Example:**



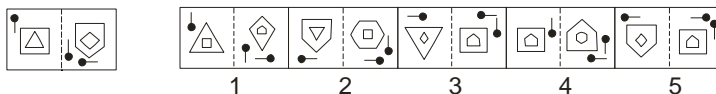
**Answer:**

2; the second is the mirror image of the first.

#### Type III: Choosing the set of similarly related figures

In this type of questions of analogy one pair of figures is provided as problem figures which are related to each other in some ways. A set of five pairs of figures is presented as answer figures out of which you have to find out the pair which has a similar relationship as the problem figures have.

**Example:**



**Answer:**

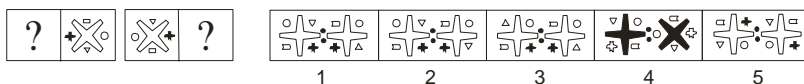
2;

The number of sides of closed elements increases by one. The pin gets inverted and moves one side ACW and a similar pin appears on ACW side pointing towards the previous one.

### Type IV: Detecting one element of each of the two related pairs

In this type of questions of analogy the problem figures contain the second figure of the first pair and the first figure of the second pair while the other two are denoted by question marks. Assuming that the two pairs of figures have similar relationship you have to choose from a set of five pairs of figures (answer figures) the pair which will best describe the similar relationship among pairs of the problem figures.

**Example:**



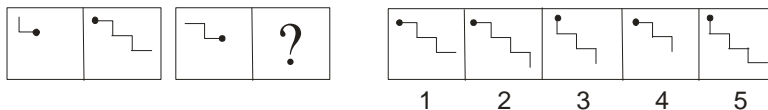
**Answer:** 2; the whole figure rotates by  $135^\circ$  CW.

### Bases of Analogy

#### 1. Based on number of elements

Sometimes the number of elements is the basis of analogy. In such cases the number of components in both the pairs of figures may be increasing or decreasing by a certain number or a certain ratio.

**Example:**



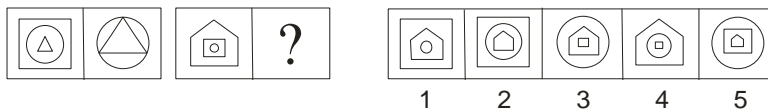
**Answer:** 2

The figure rotates by  $180^\circ$  and three line segments forming a step-like structure are attached to it.

#### 2. Based on shape/size of elements

The shape or size of various elements sometimes becomes the criteria of analogy between pairs of figures. Either a figure reduces in size or increases in size or its shape may undergo a change.

**Example:**



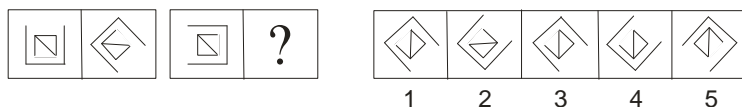
**Answer:** 2

The outermost element reduces in size and becomes the innermost while the inner two elements increase in size. The innermost becomes middle and middle becomes the outermost.

#### 3. Based on rotation of elements

Some problems on analogy are based on rotation of the whole figure or its elements.

**Example:**



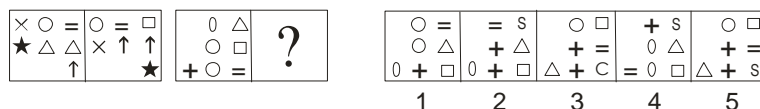
**Answer:** 2

The outer element rotates by  $135^\circ$  CW while the inner element rotates by  $45^\circ$  CW and gets inverted.

#### 4. Based on shift of elements

The shift of elements also becomes an important criterion for determining the analogy between two figures. This assumes greater significance in figures which have numerous elements and each of them follows a definite pattern of shift.

**Example:**



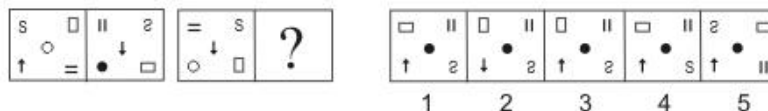
**Answer: 5**

The elements move one step ACW. The element appearing singly in lower row gets doubled and one of them replaces central element while element similar to the central element is replaced by a new one.

#### 5. Mixed Cases

More often than not, the basis of analogy for figures can be a mixture of the numerous considerations explained above. In spirit, this is very similar to mixed series that you studied in the previous lesson. For example the basis of analogy may be shift + number of elements or rotation + number of elements or rotation + shape of elements etc.

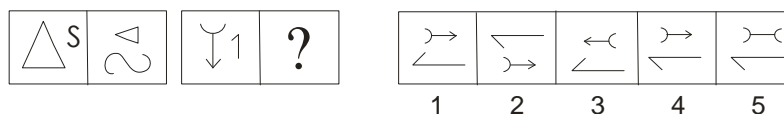
**Example:**



**Answer: 1**

It is a case of **rotation + shift**. The circle and the arrow interchange their places. The arrow gets inverted and the circle gets shaded. The rectangle and equal sign rotate by  $90^\circ$  and S gets inverted. These three move one step CW in cyclic order.

**Example:**



**Answer: 1**

It is a case of **rotation + size**. The whole figure rotates by  $90^\circ$  ACW. The LHS element reduces in size and is placed above while the RHS gets enlarged in size and its water image is placed below.