



PEOPLE IMPROVE PERFORMANCE

*Candidate brochure with instruction and sample questions*

*Educational level:  
lower – mid-level vocational education*

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## 1 Why this brochure?

This brochure wishes to give you insight into the upcoming testing procedure. It is important for you to start the testing procedure well-informed and that you are relieved of any uncertainties about the ins and outs of the tests in the procedure.

Specifically, you will receive an instruction and sample questions for the Connector Ability test.

The brochure wishes to give you an answer to the following questions:

- Why tests?
- What is Connector Ability: what is being tested?
- How does computer testing work?

It is very important that you prepare yourself for the test. Then you know what to expect and, besides that, it is important that everyone who takes this test knows what the test is about. Therefore, this brochure thoroughly enters into:

- How to prepare?
- Instruction per subtest and sample questions.

## 2 Why tests?

Tests are used to gain an image of the candidate that is as objective as possible. Each candidate is given a large number of questions to answer and problems to solve. The test situation is the same for each candidate. The candidate's results are compared with the results of a large group of people who have taken the same test and who have had a similar education. The results of these people have been processed into a table of comparison, also referred to as a norm table.

Tests generally give a reliable image of a person's intellectual abilities and personal characteristics. Characteristics which are not relevant, such as race, sex, or appearance, have no bearing on the result.

Finally, tests are used because they have a relatively high predictive value. The connection between the test results and (later) behavior in the position is examined. If, for example, it appears that a lot of people with the same test results do well in a particular profession, then we can expect that someone with a similar test result will also perform well in that profession.

### **3 What is Connector Ability: what is being tested?**

Connector Ability is an intelligence test, a test that measures problem-solving ability.

Connector Ability consists of three subtests:

- Series of Figures. This subtest measures the ease with which someone can complete logical reasoning;
- Matrices. This subtest measures the ease with which someone can analyze and continue complicated relationships;
- Series of Numbers. This subtest measures the ease with which someone can analyze and continue the relationship between numbers.

### **4 How does computer testing work?**

#### **4.1 Taking the test**

The Connector Ability will be administered with the help of a computer. Even if you have little experience with computers you will notice that computer testing is very easy.

In case you take the test at home:

U will receive an e-mail with subject line: "Connector Ability for (your name and the test's reference number)". This email contains your link to the test as well as data regarding your contact person at the organization that requested the test.

The questions appear on screen, after which you choose from a number of possible answers. This is done with the computer mouse.

#### **4.2 Which steps to take when taking the test?**

##### **4.2.1 Personal data and background questions**

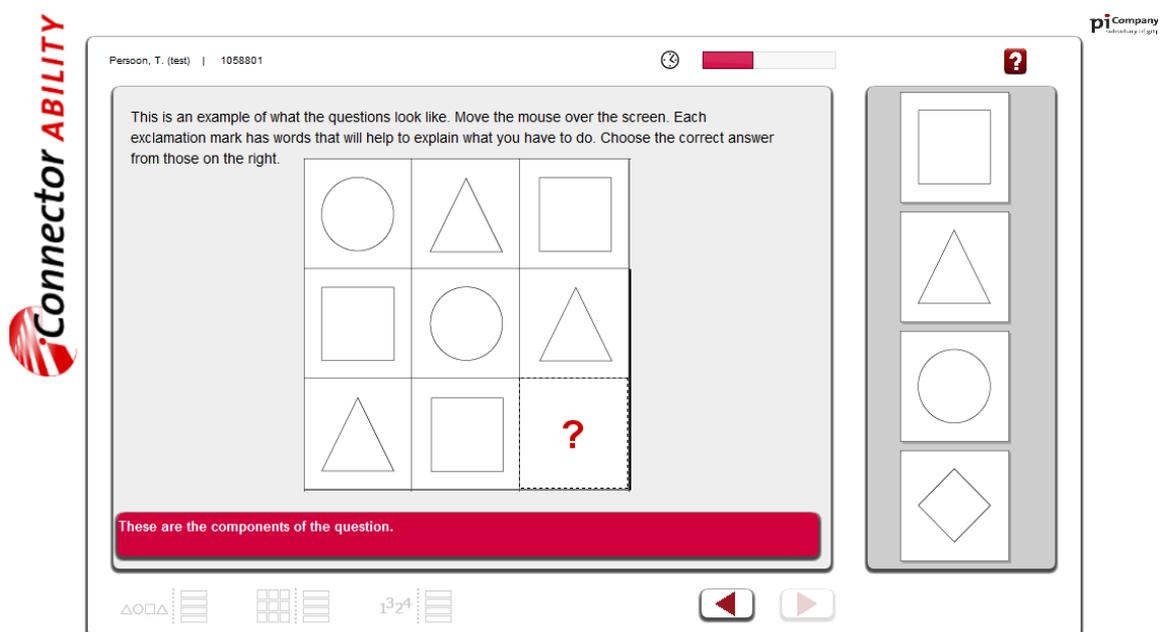
Before you start with the test, you are asked to indicate whether your personal data are correct. These data refer to your name and birth date.

You may wonder about the protection of the information entered into the computer. Measures have been taken to prevent that your personal and test information, which are stored in the computer, can be accessed by anyone without authorization. Your personal data is stored in a file in such a way that those who are not meant to have this information have no access to it. This way your personal details are protected. When you start the test, you can read more about the protection of your personal data and your rights, in the explanation prior to the instruction.

Next, we ask you to provide some more data on your personal background, for example on your education, work experience and on your and your parents' country of birth. This information is used for research purposes only. Data are processed anonymously and are not in any way used in reporting or in interpreting your test results. It is not mandatory to answer these questions.

#### 4.2.2 General instruction

Based on the screen below we will explain how the test works.



By moving the mouse across the screen the various parts of the screen are explained.

The **problem** can always be seen in the middle of the screen.

The **answering buttons** are on the right of the screen. By clicking on these buttons you choose an answer. This answer can always be changed (by clicking on a different answer).

At the top of the screen you see a **time bar**.

#### 4.2.3 Instruction per subtest

After exiting the test screen, the instruction of the first subtest will start. This instruction is identical to the instruction presented in this brochure. Also in case of the actual test, you can go through this instruction and sample questions at your own pace. Once you have understood the examples you can start the actual test. The time will not start to run until then.

#### 4.2.4 The actual test

After the instruction, the actual subtest will start. For example: Series of Figures.

The number of questions you receive in each subtest, depend on the answers you give. The computer program offers questions until it has been able to estimate your problem-solving ability based on your answers. For each question you have to give an answer within a limited number of minutes, however, for most people this time is sufficient to be able to answer the question.

Your answers will then be checked and stored by the computer. In the report, your scores will be compared to the scores of people with a comparable level of education.

## 5. How to prepare?

### 5.1 The basis for reliable test conditions

So as to be able to take the test under optimal conditions, we advise you to keep to the following points:

- Take the Connector Ability practice test and make sure you understand the explanation.

You can find the Connector Ability practice test on PI Company's website: [www.picompany.nl](http://www.picompany.nl)  
Click on the link 'US' at the top right of the page for the English instruction.  
Note: the test report gives an indication of your general intelligence. The purpose however of this test is to practice questions that are comparable to the actual test questions.

- Before starting with the official Connector Ability test, first go again through the explanation and the sample questions. This explanation and the sample questions are the same in both the practice test and the official test.
- Prior to taking the test, inform your contact person about anything that might be relevant to know (e.g., you are dyslectic). In doubt, consult with your contact person before taking the test.
- Make sure that you are sufficiently fit and rested when you take the official test. If you are ill, please contact person at the organization that invited you. If possible, you can make test on another day. If you make the test, the result is valid.

In case you take the test at home:

- Plan when to take the test. Choose a time when you can work undisturbed for approximately one hour and a quarter. Take the test within the time limit set by the organization that invited you to the test!
- Work alone. You are not allowed to receive help from other people. Also you are not allowed to use any aids except for pen and paper.  
The organization can decide to check your test results by administering a subsequent test under supervision (the Connector Ability Validator).
- Make sure that you can not be disturbed while taking the test. Turn off the phone, close the door, let other people know that you can not be disturbed.

When the tests are held you will be given again an explanation about how you are supposed to do the different parts. It is wise however to take the practice test, so that you know what you will be dealing with and you can concentrate fully on the problems.

## **5.2 Instruction and sample questions**

For each subtest, you receive an instruction below. You can practice with sample questions, so that you will know what the particular subtest is all about before you start taking the actual subtest.

The sample questions will give you a good impression of what the particular subtest is all about; however, questions in the actual test and the sample questions can differ in difficulty.

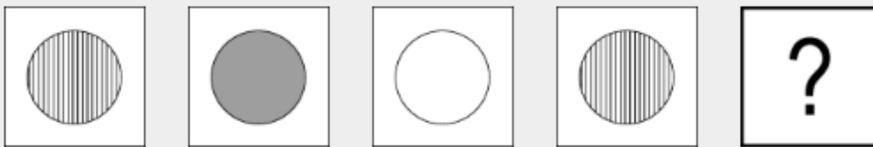
### 5.2.1 Series of Figures

#### Series of figures

There are 4 boxes. Each box contains a figure.

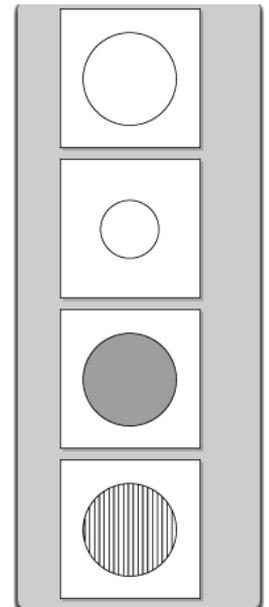
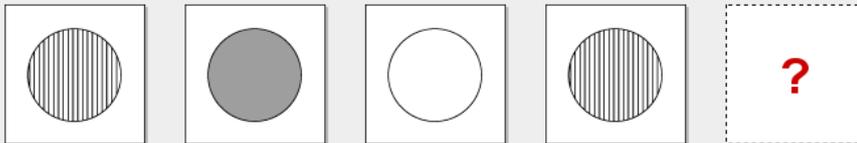
Something changes. Look from left to right. Continue with the pattern of change.

What should be in the box with the question mark?



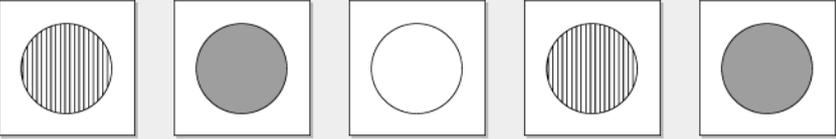
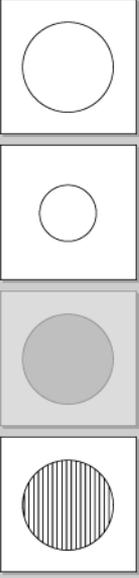
What should be in the box with the question mark?

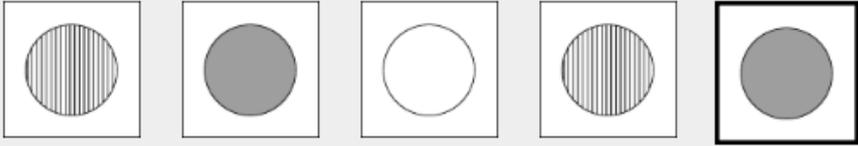
To the right there are 4 answers.  
Choose the correct answer.



What should be in the box with the question mark?

To the right there are 4 answers.  
Choose the correct answer.



striped      dark      empty      striped      **dark**

After a striped circle there is again a dark circle.

Now you do NOT have to answer a question. Just look and read carefully.

This may change:

Size:



big



smaller



smallest

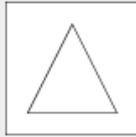


big again

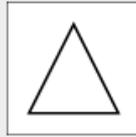


smaller

Thickness:



thin



thicker



thickest



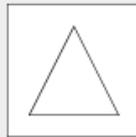
thin again



thicker

And this may change:

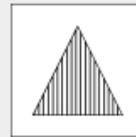
Content:



empty



dark



striped

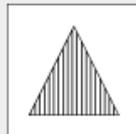


empty again



dark

The content turns:



the stripes turn further to the right

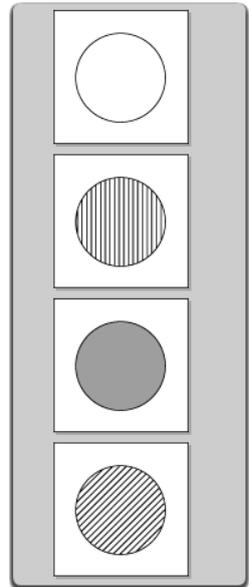
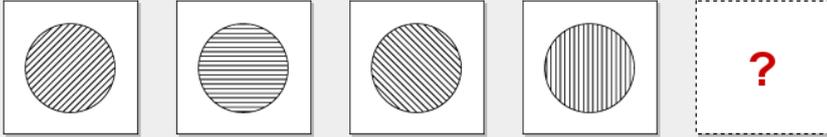


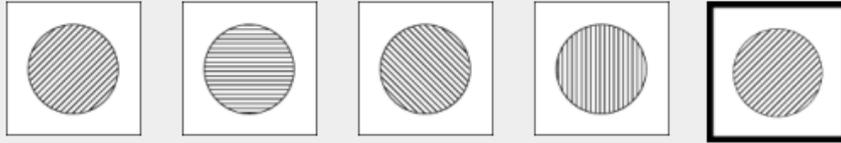
straight up again

Now you try to answer this one.

Look from left to right. Something changes. What happens next? Look carefully to see how the stripes change.

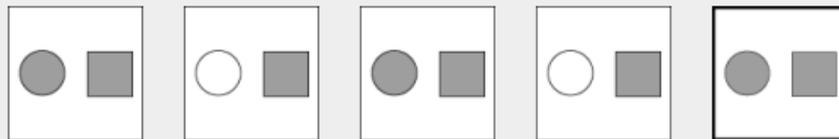
What should be in the box with the question mark? Choose the correct answer.





The stripes turn further to the right.  
The stripes lean to the right.

Sometimes there are 2 figures in 1 box. Like here  
Look carefully at what changes.

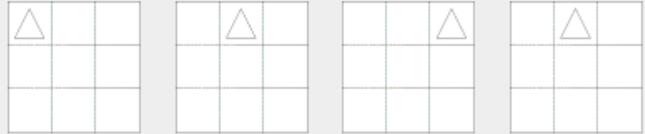


The circle changes like this: full-empty-full-empty.  
So after an empty circle there is a full circle. The square stays the same.

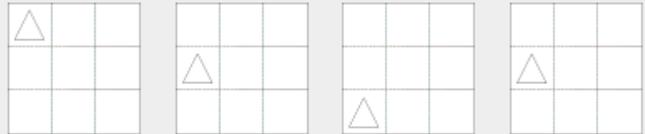
Each box actually consists of nine (invisible) boxes. Or: nine places for a figure.

A figure can go to a different place in the box, as follows:

From left to right (or from right to left):



From top to bottom (or from bottom to top):

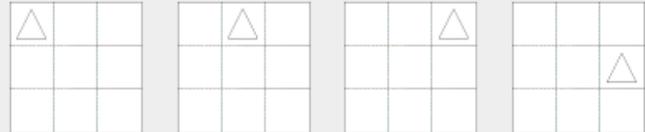


Diagonally:



A figure can also turn like the hands on a clock (clockwise or counter-clockwise):

Moving 1 place each time:



Moving 2 places each time:

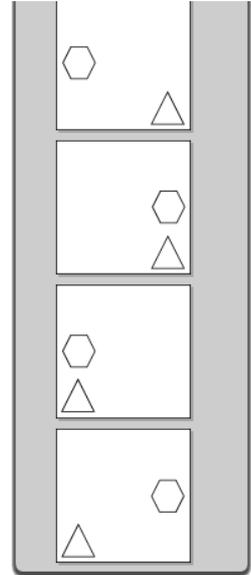
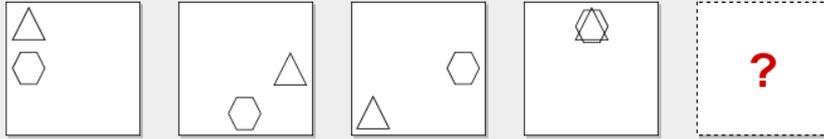


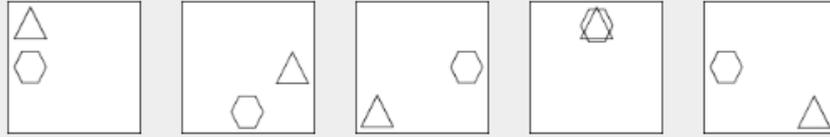
Moving 3 places each time:



Now you try to answer this question. Imagine that each square is divided into nine boxes. Look carefully at how the triangle moves. And how the hexagon moves.

What should be in the box with the question mark? Choose the correct answer.



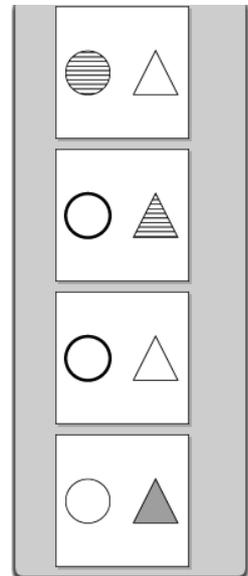
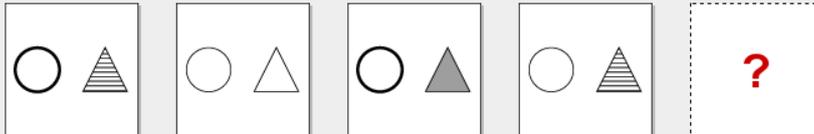


Imagine that each square is divided into nine boxes.  
 Look at each square in turn, going from left to right. This is what changes:

- The triangle keeps moving clockwise, three places.
- The hexagon keeps moving anti-clockwise, two places.

Here is the last question.  
 Look carefully at how the circle changes. And look at how the triangle changes.

What should be in the box with the question mark?





The circle changes like this: thick-thin-thick-thin.

So after a thin circle there is a thick circle.

The triangle changes like this: striped-empty-dark-striped.

So after a striped triangle, there is an empty triangle.

Now we start with the real questions.

Always select an answer. This is better than leaving all answer options blank.

After the real questions, you will be presented with the instruction and sample questions for the next part of the test: Matrices.

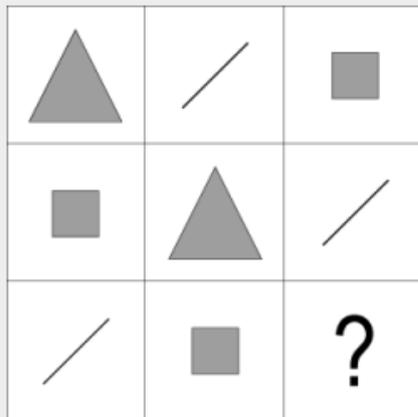
## 5.2.2 Matrices

### Matrices

A matrix is a large square with 9 boxes. Each box contains a figure.

The question is:

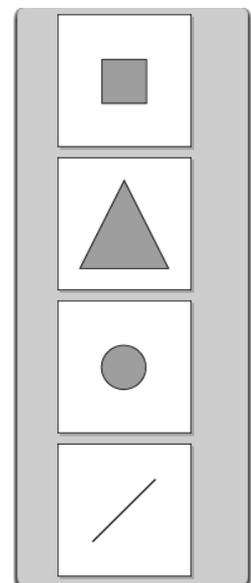
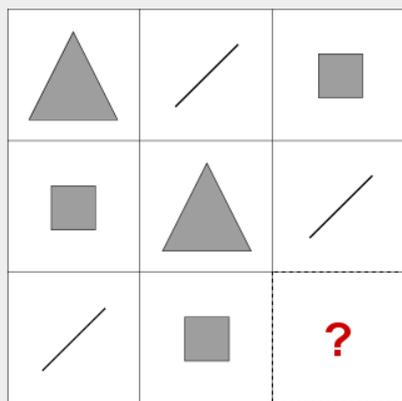
What should be in the box with the question mark?

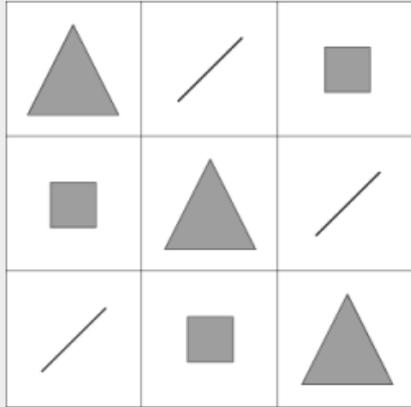


What should be in the box with the question mark?

To the right there are 4 answers.

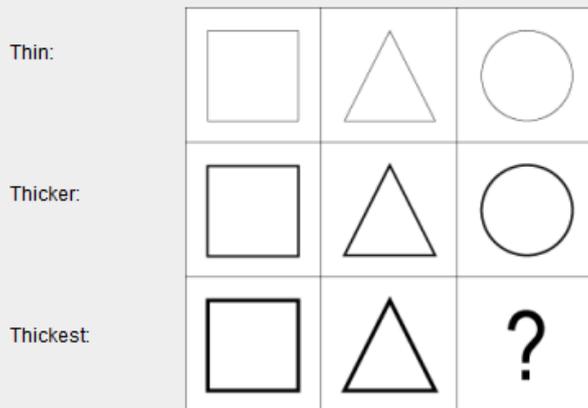
Choose the correct answer.





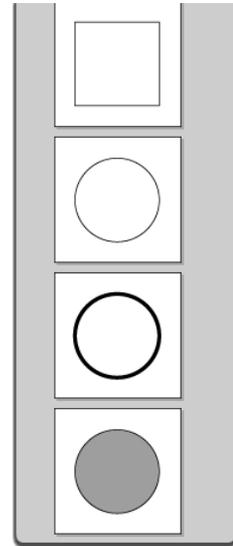
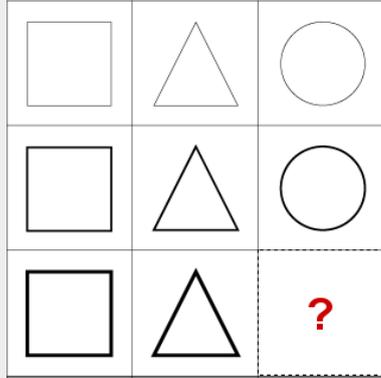
This is the correct answer.  
Now each figure is there 3 times.

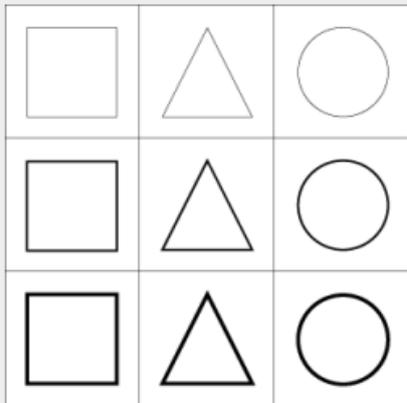
Sometimes the answer is about the thickness of the figures. Like here:



Now you try to answer this question.  
What should be in the box with the question mark?

Choose the correct answer.





This is the correct answer.

Now each figure is there 3 times.

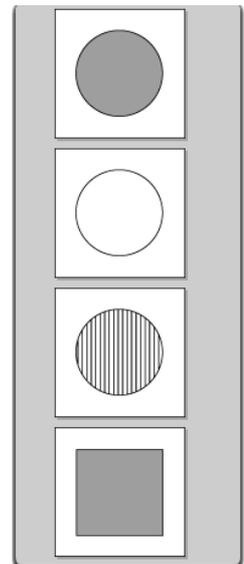
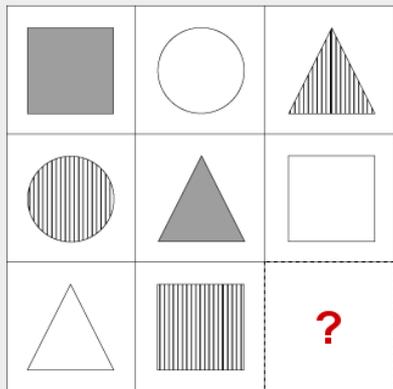
In the top row, all the figures are thin.

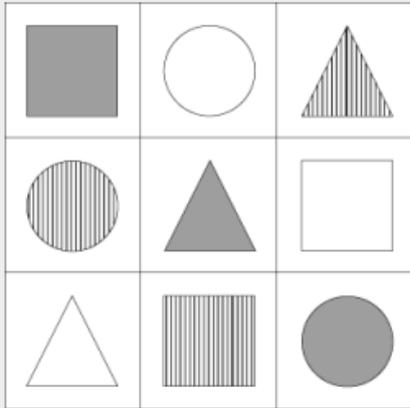
In the middle row, they are a little thicker.

In the bottom row, the figures are the thickest.



Sometimes the answer is about the content of the figures. Now you try to answer this one.  
What should be in the box with the question mark?

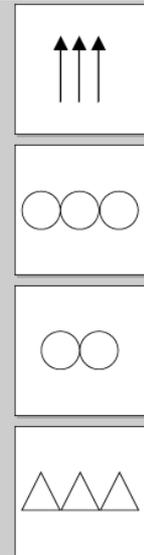
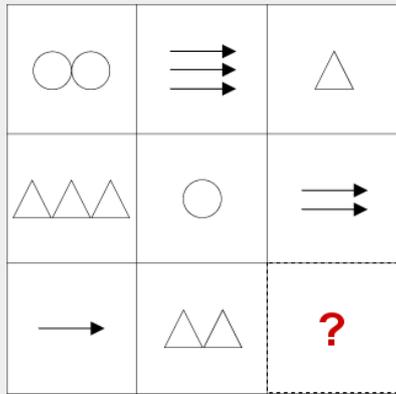


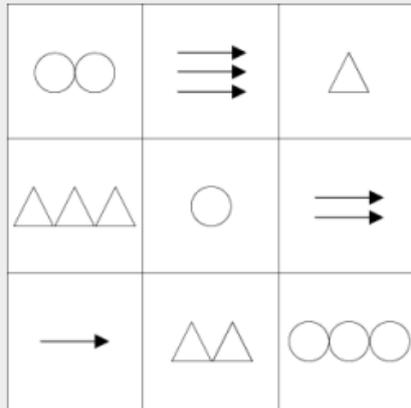


This is the correct answer.

Now each figure is there 3 times.  
Once empty, once striped and once dark.

Sometimes the answer is about the number of times the figure appears. Now you try to answer this one.  
What should be in the box with the question mark?

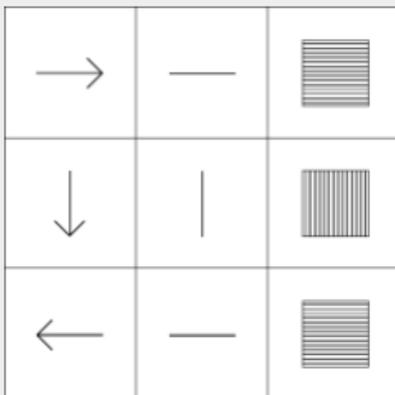




This is the correct answer.

Each figure appears on its own, as a pair, and in threes.

A figure can also turn, as you can see here. Look from top to bottom.  
Each figure keeps turning +90 degrees, a quarter turn to the right.



Now you try to answer this question.  
 What should be in the box with the question mark?

	↑	↑
//	↗↘	↗
≡	→→→	?

- ←←←
- 
- 
- 



	↑	↑
//	↗↗	↗
≡	→→→	→→→

In the top row every shape occurs only once. In the middle row, every shape occurs twice. And in the bottom row every shape occurs three times.

So in the bottom row there should be three arrows in the right corner.

The same type of arrows occur in each column. Therefore, in the bottom row the type of arrows should be identical to the two arrows that appear in the box just above.

Sometimes there are more than 3 different figures. Like here. Now you try to answer this one. What should be in the box with the question mark?

●	▲	▧
▲	▧	●
▧	●	?

- ▲
- |
- 
- | ▧





This is the correct answer.

In total there are 4 figures.  
Each figure is there 3 times.

Now we start with the real questions.

Always select an answer. This is better than leaving all answer options blank.

After the real questions, you will be presented with the instruction and sample questions for the next part of the test: Series of Numbers.

### 5.2.3 Series of Numbers

#### Series of numbers

There are 4 numbers. Something changes. Look from left to right.  
Continue with the pattern of change.

Which number should be in the place of the question mark?

2    4    6    8    ?

Which number should be in the place of the question mark?  
To the right there are 4 answers.  
Choose the correct answer.

2    4    6    8

?

5

7

10

12



Each time two is added to the previous number (+2).

The next number will be  $8 + 2 = 10$



The number could also be lower. Something is taken away (-).  
Look carefully from left to right. Something changes.

Which number should be in the place of the question mark?  
Choose the correct answer.



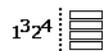
15      13      11      9

7

8

10

11

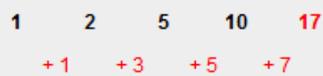


Each time, 2 is taken away from the number before (-2).

The next number is:  $9 - 2 = 7$



The change could also be about becoming bigger every time. Like here:

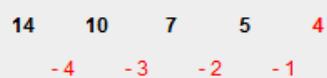


The extra bit that is added is always +2.

The next number is:  $10 + 7 = 17$



The change could also be about becoming smaller every time. Like here:



Now you try to answer this one.

Which number should be in the place of the question mark?

15      10      6      3



1

2

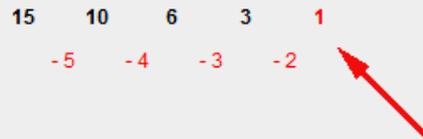
3

4



Each time, less is taken away.

The next number is:  $3 - 2 = 1$



Now you try to answer this new one.

Which number should be in the place of the question mark?

1      3      6      10



- 12
- 14
- 15
- 16



Each time, a bit more is added.

The next number is:  $10 + 5 = 15$



Now you try to answer this last question.

Which number should be in the place of the question mark?

34      38      42      46

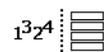


47

48

50

54



Each time, 4 is added.

The next number is:  $46 + 4 = 50$



Now we start with the real questions.

Always select an answer. This is better than leaving all answer options blank.

After finishing this last part of the test, the test will close automatically.