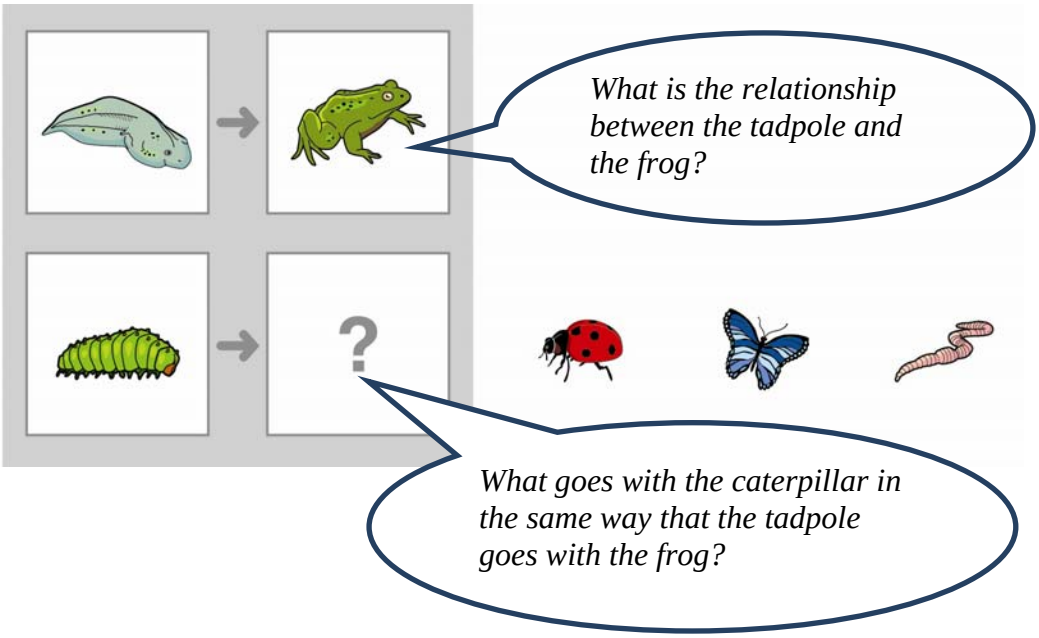
Test 1: Picture Analogies, Levels 5/6–7

Part 1: Overview of Picture Analogies

An analogy draws parallels between objects or ideas. Analogies can be about simple concepts such as “Brothers are boys just like sisters are girls” or complex concepts such as “Friendships are like glass. Once broken, they are difficult to restore.” Successful learners habitually reason by analogy. Good analogies allow them to use what they already know when they are trying to understand new ideas. In the Picture Analogies test, reasoning by analogy requires finding ways in which two things are similar and using these similarities to create a second pair of objects or ideas that are like each other in the same way.

In this test, students are asked to solve analogies that look like this:



When practicing the Picture Analogies questions, encourage students to use these strategies.

- Describe, in words, ideas about how the first picture relates to the second picture. For example, a tadpole grows into a frog.
- Test the idea by applying it to the third figure to generate a possible answer. Then look for that answer among the answer choices.
- Look for a different, more precise rule if more than one answer choice fits the rule.

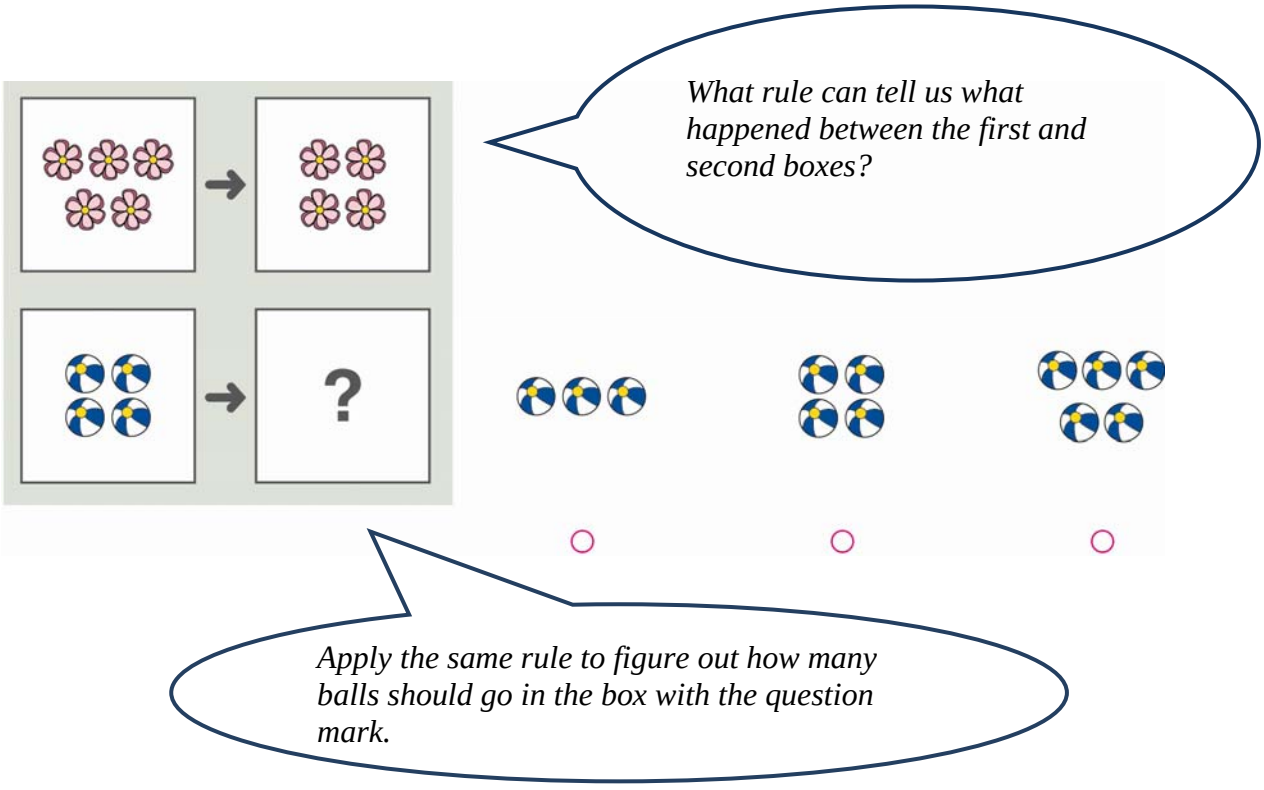
Test 2: Number Analogies, Levels 5/6–7

Part 1: Overview of Number Analogies

An analogy draws parallels between objects or ideas. Analogies can be simple ("Two is one more than one as three is one more than two") or complex ("Friendships are like glass. Once broken, they are difficult to restore"). Successful learners habitually reason by analogy. Good analogies allow them to use what they already know when they are trying to understand or remember new ideas. Reasoning by analogy requires attending carefully to the ways in which two things are similar. Then this relationship is mapped onto something new.

The Number Analogies test requires the student to understand the relationship between the two pictures of objects in the top row of each question and then select an answer that makes the two pictures in the bottom row of the question go together in the same way. Performance on this test predicts mathematics achievement because discovering quantitative patterns and relationships is at the core of learning mathematics.

In this test, students are asked to solve problems that look like this:



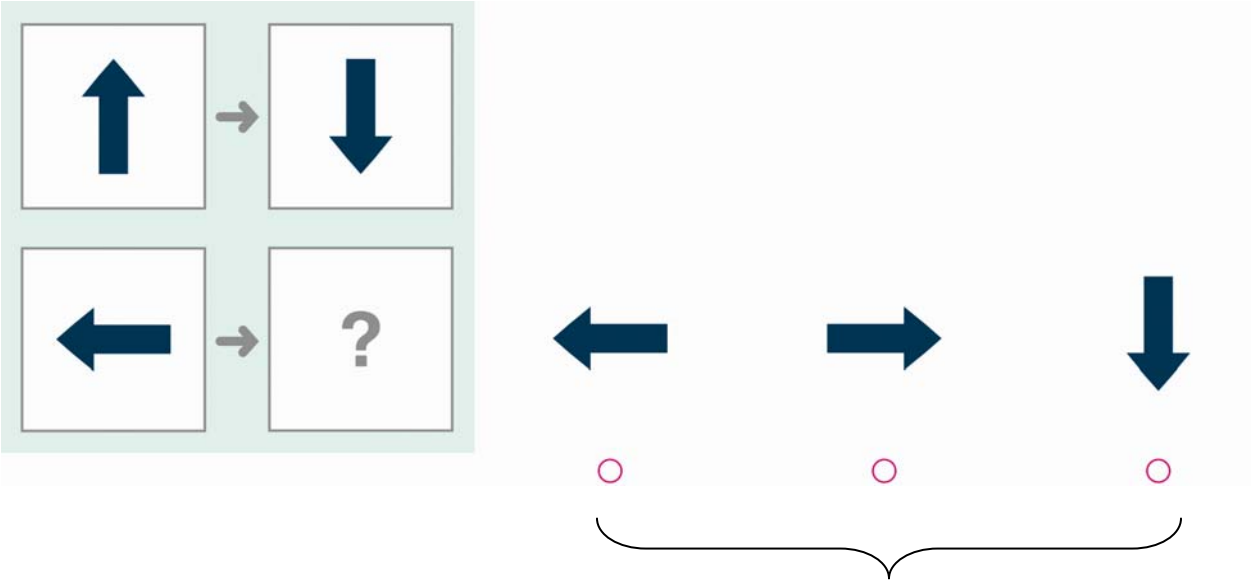
Test 3: Figure Matrices, Levels 5/6–7

Part 1: Overview of Figure Matrices

An analogy draws parallels between objects or ideas, for example, "up is to down as left is to right." Analogies can be about simple things "A tadpole is like a fish" or complex concepts "Friendships are like glass. Once broken, they are hard to fix." Successful learners habitually reason by analogy. Good analogies allow them to use what they already know to understand or remember new ideas. Reasoning by analogy requires attending carefully to how two things are similar and then applying these relationships to something new.

The Figure Matrices test is like the Picture Analogies and Number Analogies tests except the questions use figures or shapes rather than pictures of objects or activities.

In this test, students are asked to solve problems that look like this:



Which answer picture shows what would happen if the new arrow changed in the same way as the first arrow?