International Journal of Academic Multidisciplinary Research (IJAMR)
ISSN: 2643-9670
Vol. 5 Issue 1, January - 2021, Pages: 10-13

The Concept of Compatibility, Actions on Compatibility.

Usmonov Makhsud

Tashkent University of Information Technologies, Karshi branch 3rd year student
+99891 947 13 40
maqsudusmonov22@gmail.com

Abstract: In addition to the relationships in a set, it is often the case between two set elements, for example, between X “intersections” and Y “real numbers” or A “plane point” and B “pair of real numbers” when measuring the lengths of a section. have to look at the relationship. Such relationships are called compatibility.

Keywords: in practice, squares are placed side by side, on top of each other, connected by intersections, etc., the concept of multiplicity, elements of a set.

INTRODUCTION

In essence, the correspondence between two elements of a set Xva represents a set of pairs, such as the relationship in a set, and sets X and Y are a subset of the Cartesian product.

The compatibility between finite sets is also represented by graphs. To do this, all pairs of numbers corresponding to R are represented by points in the coordinate plane. The resulting figure is a graph of the correspondence R. Conversely, an arbitrary set of points in a coordinate plane is a graph of a correspondence.

METHODS

1- example. X- {3; 5; 7; Draw a graph of the "large" correspondence between the elements of the set 9} and Y = (4; 6}.

Y e c h i s h. To do this, the elements of a given set are denoted by points, and arrows are drawn from the points representing the elements of the set X to the points representing the elements of the set Y, with a "large" match. For example, an arrow should go from 5 points to 4 points because the number 5 is greater than 4. The 7 point has a “big” match between the 4 and 6 point bomber arrows.

Write a pair of numbers that correspond to a given: (5; 4), (7; 4), (7; 6), (9; 4), (9; 6). In the OX of the elements of the set, a graph of the "large" correspondence between the elements of the set is created. Such a representation of compatibility allows them to be visualized in the case of an infinite number of pairs in a given compatibility.

2- example. X = R and Y = {4; 6} Graph the "big" match between the elements of the set.

Ye chish. In this case, the elements of the set Y completely fill the abscissa axis, and the set Y consists of two elements: 4 and 6. Since the elements of sets X and Y are given a "large" correspondence, which numbers in the set X are greater than 4? is determined. All numbers greater than 4 are to the right of the point representing the number 4 on the OX axis. Therefore, all points with abscissa (4; ° o) and ordinate 4 produce light AB. This light does not have a starting point because the point (4; 4) does not belong to the given graph of conformity. Similarly, all points on the abscissa (6; °°) with an ordinate of 6 produce a CD ray.

Thus, X = R and Y = {4; 6} The graph of the "big" correspondence between the elements of the set is the rays AB and CD, where points A and C do not belong to the graph.

3- example. Graph the "big" (x> y) correspondence of X = Y = R in the set of real numbers R.

Solution. All numbers equal to the ordinate of the abscissa are located in the bisector of the coordinate angles 1 and 3. All points greater than the ordinate of the abscissa are below the bisector. To make sure of this, it is sufficient to take a point from this field, for example, a point A (3; 0). Thus, the graph of the "big" correspondence given by R in a set of real numbers is a half-plane below the bisector of coordinates 1 and 3, where the bisector itself does not belong to this half-plane.

Example 4 R compatibility X = {3; 5; 7} and Y = {4; 6} Given a "large" match between the elements of the set. Find the inverse of the R match.

Y e c h i s h. R compatibility X = {3; 5; 7} and Y = {4; 6} The "big" correspondence between the elements of the set is R = {(5; 4), (7; 4), (7; 6)}. The direction of the arrows in this graph is reversed. A new "small" relation graph is generated between sets X and Y and defined by pairs (4; 5), (4; 7), (6; 7). The inverse of the given R conformity is written as R ~ '.

5- example. A = \ a; b \ c \ d \, B = {1; 2; 3; Let 4}. Graph the correspondence between the elements of these sets. Will there be a value match?

Y e c h i s h. Because each element of set A corresponds to a unique number from set B, and each number in set B corresponds to A.

since only one element in a set corresponds to a given match between sets A and B, it is a one-valued match.

6- example. Explain the expressions 3 = 3 and 3 <4.

Solution. To explain the notation 3 = 3, 3 red and 3 green squares are taken and a single green square is assigned to each red square (in practice the squares are placed side by side, on top of each other, connected by intersections, etc.), ya ' on this set of squares a mutually compatible match is set. 3 <4

a 3-element set to display and a 3-element part set of a 4-element set to set a reciprocal value.

Set theory studies the properties of elements and the actions that take place between them, regardless of the nature of the elements. If two sets consist of the same elements representing different characteristics, they are considered equal. Our goal is to look at some compatibility between the two sets.

The following statement is appropriate for a pair between 1st year students. Halima and Barno are in group 101, for the second pair, student a is better than student b, and for the third pair, "Halima is the same age as Bamo." Each confirmation is given in accordance with a and b (co-study, good study, age equality). In this example, we are talking about the elements of a single set. It is also possible to talk about different collection elements. For example, the statement "Halima is a sophomore" confirms the compatibility between the student body and the course.

Explain the shift schedule of Sherali, Elmurod, Shuhrat, Nargiza, Erkin and Rano in the classroom on the 1st, 2nd and 3rd days of the week:

Name Days

1-day 2-day 3-day

Sherali +

Elmurod +

Fame +

Nargiza +

Free +

Ra'no +

Compatibility between "X teacher Y day duty".

X = {10; 20; 30; 40}, Y = {2; 3; 4} and / correspond to "x is divisible by y".

XfY = {(10; 2), (20; 2), (30; 2), (40; 2), (20; 4), (30; 3), (40; 4)} XfY compatibility is true.

In general, afb compatibility is written as equal, large, small a = b, a <b, a> b or parallelism and perpendicularity a \\ b, a Lb. The binary match between X and Y is called the set / binary relationship in set X.

The image of the element G G X in the / relationship between Xxa Y is empty or may consist of several elements.

If the image of an element A G X consists of only one element of the set Y, then such / compatibility

This is called the reflection of X to Y and is denoted by /: X -> Y or X - ^ - * Y. In this / character reflection rule.

For example. 1) X is the set of students in the auditorium, Y is the set of chairs, each student is sitting in one chair. /: x student is sitting in chair y, the law reflects X to Y;

2) Complete the table given by the formula y = x + 4:

X 0 1 2 3 4 5

x + 4

RESULTS

Set theory studies the properties of elements and the actions that take place between them, regardless of the nature of the elements. If two sets consist of the same elements representing different characteristics, they are considered equal. Our goal is to look at some compatibility between the two sets.

The following statement is appropriate for a pair between 1st year students. Halima and Barno are in group 101, for the second pair, student a is better than student b, and for the third pair, "Halima is the same age as Bamo." Each confirmation is given in accordance with a and b (co-study, good study, age equality). In this example, we are talking about the elements of a single set. It is also possible to talk about different collection elements. For example, the statement "Halima is a sophomore" confirms the compatibility between the student body and the course.

Explain the shift schedule of Sherali, Elmurod, Shuhrat, Nargiza, Erkin and Rano in the classroom on the 1st, 2nd and 3rd days of the week:

Name Days

1-day 2-day 3-day

Sherali +

Elmurod +

Fame +

Nargiza +

Free +

Ra’no +

Compatibility between “X teacher Y day duty”.

X = {10; 20; 30; 40}, Y = {2; 3; 4} and / correspond to "x is divisible by y".

XfY = {(10; 2), (20; 2), (30; 2), (40; 2), (20; 4), (30; 3), (40; 4)} XfY compatibility is true.

In general, afb compatibility is written as equal, large, small a = b, a <b, a> b or parallelism and perpendicularity a \\ b, a Lb. The binary match between X and Y is called the set / binary relationship in set X.

The image of the element G G X in the / relationship between Xxa Y is empty or may consist of several elements.

If the image of an element A G X consists of only one element of the set Y, then such / compatibility

This is called the reflection of X to Y and is denoted by /: X -> Y or X - ^ - * Y. In this / character reflection rule.

For example. 1) X is the set of students in the auditorium, Y is the set of chairs, each student is sitting in one chair. /: x student is sitting in chair y, the law reflects X to Y;

DISCUSSION

2- example. X = R and Y = {4; 6} Graph the "big" match between the elements of the set.

Ye chish. In this case, the elements of the set Y completely fill the abscissa axis, and the set Y consists of two elements: 4 and 6. Since the elements of sets X and Y are given a "large" correspondence, which numbers in the set X are greater than 4? is determined. All numbers greater than 4 are to the right of the point representing the number 4 on the OX axis. Therefore, all points with abscissa (4; ° o) and ordinate 4 produce light AB. This light does not have a starting point because the point (4; 4) does not belong to the given graph of conformity. Similarly, all points on the abscissa (6; °°) with an ordinate of 6 produce a CD ray.

Thus, X = R and Y = {4; 6} The graph of the "big" correspondence between the elements of the set is the rays AB and CD, where points A and C do not belong to the graph.

3- example. Graph the "big" (x> y) correspondence of X = Y = R in the set of real numbers R.

Solution. All numbers equal to the ordinate of the abscissa are located in the bisector of the coordinate angles 1 and 3. All points greater than the ordinate of the abscissa are below the bisector. To make sure of this, it is sufficient to take a point from this field, for example, a point A (3; 0). Thus, the graph of the "big" correspondence given by R in a set of real numbers is a half-plane below the bisector of coordinates 1 and 3, where the bisector itself does not belong to this half-plane.

Example 4 R compatibility X = {3; 5; 7} and Y = {4; 6} Given a "large" match between the elements of the set. Find the inverse of the R match.

Y e c h i s h. R compatibility X = {3; 5; 7} and Y = {4; 6} The "big" correspondence between the elements of the set is R = {(5; 4), (7; 4), (7; 6)}. The direction of the arrows in this graph is reversed. A new “small” relation graph is generated between sets X and Y and defined by pairs (4; 5), (4; 7), (6; 7). The inverse of the given R conformity is written as R ~ '.

CONCLUSION

The compatibility between finite sets is also represented by graphs. To do this, all pairs of numbers corresponding to R are represented by points in the coordinate plane. The resulting figure is a graph of the correspondence R. Conversely, an arbitrary set of points in a coordinate plane is a graph of a correspondence.

For example. 1) X is the set of students in the auditorium, Y is the set of chairs, each student is sitting in one chair. /: x student is sitting in chair y, the law reflects X to Y;

REFERENCES

1. Bikbayeva NU, Sidelnikova RI, Adambekova GA Methods of teaching mathematics in primary school. A Methodological Guide for Elementary School Teachers. - T .: "Teacher", 1996.

2. Ahmedov M., Abdurahmonova N., Jumayev M. 1st grade mathematics textbook. - T .: «Turon-Iqbol», 2009.

3. Ahmedov M., Abdurahmonova N., Jumayev M., Ibragimov R. Teacher's book. Methodical manual for the first grade mathematics textbook. - T .: «Turon-Iqbol», 2008.

4. Bikboyeva N. and others. Second grade math textbook. - T .: "Teacher 0", 2008.

5. Jumayev M. Theory and methods of development of mathematical concepts in children. - T .: «Ilm-Ziyo», 2009.

6. Jumayev M. and others. Methods of teaching mathematics. - T .: «Ilm-Ziyo», 2003.