

THE MAIN REFLECTION PROPERTIES OF A FUNCTION

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Annotation

This article is written as a methodological recommendation for teachers and students. From the main sections of mathematics, information is given about ASL. The main properties of reflection as a result of the study of this topic by the reader his interest in the topic increases. We also tried to show examples of the main properties of this reflection in this article on this topic. The article serves to improve the effectiveness of teaching mathematics. We hope that this article will appeal to you.

Keywords: suppose, s'yurective, injective, biective (mutual one-valued reflection). Let's say we have a set that doesn't have A and B.

Definition 1: If, according to a rule f , an element y of set B is mapped to each element $x \in A$ of set A, this is called a mapping to rule f and is represented as $f : A \rightarrow B$ or $y = f(x)$.

In this case, $f(x) \in B$ is called the image (axis) of $x \in A$, and x is called the probability (principle) of $y = f(x) \in B$. The set A is the domain of the representation f , and the set B is the set of values.



In the representation $f: A \rightarrow B$, $\forall x \in A$ is the image of a single $f(x) \in B$, but any element of T always has a root, even if it has a root that is not necessarily unique. Examples: Let A be the set of people, and B be the set of positive rational numbers. Let $f: A \rightarrow B$ be the accentuation of each person's height in centimeters. In this case, $f: A \rightarrow B$ represents the set of people in the set of rational numbers. There's one size fits all for every person, but there's no one size fits all for 1,500, so there's no one size fits all for 175.

The projection $f: x \rightarrow x^2$ reflects the set of all real numbers R onto the set of all real numbers R^+ . Let's represent the image of A with an $f(A)$ to represent $f: A \rightarrow B$. So it's going to be $f(A) \subseteq B$.

If there is an element $\exists b_0 \in B$ to represent $f: A \rightarrow B$ and the density $\forall x \in A$, $f(x) = b_0$ is positive, then f is called a function (constant reflection).

Explanation 2: If $f: A \rightarrow B$ and $g: A \rightarrow B$ are representations of a set and $\forall x \in A$ is a set of $f(x) = g(x)$, then these representations are denoted by and denoted by $f = g$.

Let A denote the set of all reflections that reflect a given set A onto the set B . Let's make that $A_1 \subset A$. In this case, the contraction of f to reflect $f_1: A_1 \rightarrow B$, as determined by $x \in A_1$ $f_1(x) = f(x)$, is called the contraction of f to reflect f_1 .

For example: Acceleration in R and $f(x) = \sqrt{|x|}$ ($f: x \rightarrow \sqrt{|x|}$) in R^+

It's the continuation of $f(x) = \sqrt{x}$ ($f: x \rightarrow \sqrt{x}$).

Definition of the number 3. If $f: A \rightarrow B$ has at least one root in each $y \in B$ element of A , such a representation (surjection) is called a surjective representation.

Definition of four. If each $y \in B$ has more than one root in $f: A \rightarrow B$ (i.e., $f(x_1) = f(x_2)$ is derived from $x_1 = x_2$), such an injection is called an injective projection.

Definition of the number 5. We call the $f: A \rightarrow B$ -expression, which is both syllable-active and non-syllable-active, a biction.

Examples: 1) The reflection of) $f: R \rightarrow R$ $f(x) = x^2$ is neither surjective nor ineffective. Because negative numbers don't have any roots.

2) $f_1: R \rightarrow R^+$ is subjective to ($f_1(x) = x^2$)

3) $f_2: R^+ \rightarrow R$ ($f_2(x) = x^2$) is injective.

4) When we look at $f_3: R^+ \rightarrow R^+$ ($f_3(x) = x^2$), we have a positive highlighting.



Choose 2 representations of $f : A \rightarrow B$ and $g : A \rightarrow B$.

Definition of the term For each $x \in A$, the superposition of the representations f and g on the representation $p : A \rightarrow C$, defined by the density $p(x) = g(f(x))$, is denoted by $p = g \cdot f$.

If $A = B = C$ is zero, then you can look at the composition of $fg : A \rightarrow A$ with $gf : A \rightarrow A$. So this is going to be $gf \neq fg$, generally speaking.

For example:

$$\begin{aligned} f : R \rightarrow R, \quad f : x \rightarrow x^2 \quad (f(x) = x^2); \\ g : R \rightarrow R, \quad g : x \rightarrow x+1 \quad (g(x) = x+1) \end{aligned}$$

If it is, then it's $g(f(x)) = g(x^2) = x^2 + 1$ and $f(g(x)) = f(x+1) = (x+1)^2$. $gf \neq fg$

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Definition of the number 7. If there is a reflection $\exists g : B \rightarrow A$ to represent $f : A \rightarrow B$, then the angles $gf = e_A$ and $fg = e_B$ are right. This is called the exponent of f , and the exponent of g is called the exponent of f .

By definition, g is also a vector, and g is a vector of f .

Definition of the number 8. $f : A \rightarrow A$ bijection is called a permutation of set A . Let A denote all the changes in set G_A .

Definition of the number 9. A subset H of a set G_A is called a group of changes if it satisfies the following conditions.

$$fg \in H \text{ and } gf \in H; \text{ for } g_1) \quad \forall f, g \in H$$

The unit variable e_A of a set A is also related to H .

$$f^{-1} \in H \text{ for } \forall f \in H$$

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