

srki function

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1 Introduction

Movement of a defined geometric object in the coordinate system.

Structure of function :

- one or more independent variables
- conditions:
geometrical object
independent and dependent points
coordinate system
- basic and aggregate dependent variable and constant

I will describe the function that occurs in the 2D coordinate system.

2 Definition of the geometric object in the plane

Notation :

$\widehat{x_n}$ - point

$\widehat{s_n}$ - basic and aggregate parts of the geometric object

2.1 straight line

points:

$\widehat{x_1}(A)$

$\widehat{x_2}(B)$

basic:
 $\widehat{s}_1(AB)$ - straight line

2.2 angle

points:
 $\widehat{x}_1(A)$
 $\widehat{x}_2(B)$
 $\widehat{x}_3(C)$

basic:
 $\widehat{s}_1(AB)$ - straight line
 $\widehat{s}_2(BC)$ - straight line
 $\widehat{s}_3(\alpha)$ - inner angle
 $\widehat{s}_3(\beta)$ - external angle

2 - aggregate :

$$\begin{aligned}\widehat{s}_5 &= \widehat{s}_1 + \widehat{s}_2 \\ \widehat{s}_6 &= \widehat{s}_1 + \widehat{s}_3 \\ \widehat{s}_7 &= \widehat{s}_1 + \widehat{s}_4 \\ \widehat{s}_8 &= \widehat{s}_2 + \widehat{s}_3 \\ \widehat{s}_9 &= \widehat{s}_2 + \widehat{s}_4 \\ \widehat{s}_{10} &= \widehat{s}_3 + \widehat{s}_4\end{aligned}$$

3-aggregate :

$$\begin{aligned}\widehat{s}_{11} &= \widehat{s}_1 + \widehat{s}_2 + \widehat{s}_3 \\ \widehat{s}_{12} &= \widehat{s}_1 + \widehat{s}_2 + \widehat{s}_4 \\ \widehat{s}_{13} &= \widehat{s}_1 + \widehat{s}_3 + \widehat{s}_4 \\ \widehat{s}_{14} &= \widehat{s}_2 + \widehat{s}_3 + \widehat{s}_4\end{aligned}$$

4-aggregate :

$$\widehat{s}_{15} = \widehat{s}_1 + \widehat{s}_2 + \widehat{s}_3 + \widehat{s}_4$$

3 Independent and dependent points

- independent points have a constant position in the coordinate system.
- dependent points move in the coordinate system according to the graph of the function.

4 Srki function - example

Simplest form of srki functions

General form - straight line, 2D coordinate system, one independent point, one

dependent point .

$$\widehat{x}_1(a, b) , \widehat{x}_2(x, f(x)) , \widehat{s}_1 = \sqrt{(x - a)^2 + (f(x) - b)^2}$$

$$\text{for } \widehat{x}_1(4, 7) \text{ and } \widehat{x}_2(x, 2x^2 + 1) , \widehat{s}_1 = \sqrt{(x - 4)^2 + ((2x^2 + 1) - 7)^2}$$

5 Conclusion

This is the beginning of one area of mathematics . Mathematics used now are limited, which is due to a large number of axioms . I have devised mathematics based on a natural and real basis , it has much greater potential than the present one .