**slide**

*Function of calculation of coordinates of a point belonging to straight line and removed from preset point for a preset distance.*

**Syntax:**

*S* **= slide**(*P1, P2, Ps, Pe, l*)*;*

**Arguments:**

*P1* – coordinates of the first point determining the straight line. Type – *point*,

*P2* – coordinates of the second point determining the straight line. Type – *point*,

*Ps* – coordinates of the point from which the point to be calculated is removed from. Type – *point*,

*Pe* – coordinates of the point determining the position of the point to be calculated. Type – *point*,

*l* – distance to the point to be calculated. Type – *point*,

**Description:**

*slide(P1, P2, Ps, Pe, l)* – function of calculation of coordinates of the point belonging to the straight line set by points *P1*, *P2* and removed from preset point *Ps* for a preset distance *l*. Point *Pe* determines the position of the point to be calculated.

Input values can be set as pre-defined variables or be set by expression (*x, y)*, where *x* and *y* are for the point coordinates.

**Result:**

*S* – point with calculated coordinates. Type – *point*.

**Example 1:**

|  |  |
| --- | --- |
|  | **const**  p1 = (1.1),  p2 = (1.6),  ps = (2,1),  pe = (2,6),  l = 5;  **s = slide**(p1, p2, ps, pe, l); |

As a result, value (1, 5.8989795) will be assigned to variable *s*.

**Example 2:**

|  |  |
| --- | --- |
|  | **const**  p1 = (1.1),  p2 = (1.6),  ps = (2,1),  pe = (2, -6),  l = 5;  **s = slide**(p1, p2, ps, pe, l); |

As a result, value (1, -3.8989795) will be assigned to variable *s*.