
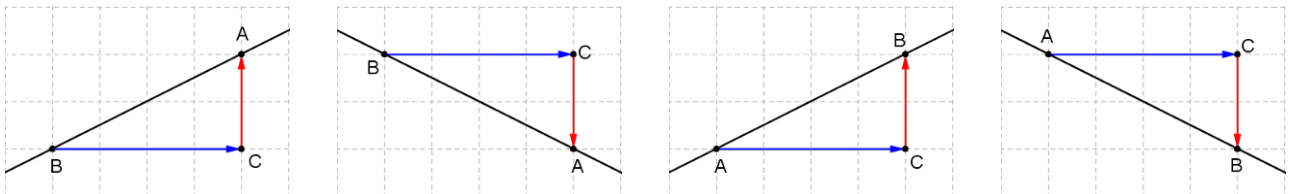


GeoGebra Tutorial: Definition of Slope

1. Right-click in the Graphics view. Choose “Graphics ...” and the “Grid” tab. Check the “Distance” box and set the distances of x and y both “1”.
2. Choose “Options | Point Capturing | Fixed to Grid”.
3. Using the line tool , create a line passing through, say, (2,1) and (6,3).
4. Input: $C = \text{If}[x(B) > x(A), (x(B), y(A)), x(B) < x(A), (x(A), y(B))]$
Note that A, B and C always form a right-angled triangle.
5. Input: $\text{deltaX} = \text{If}[x(B) > x(A), \text{Vector}[A, C], x(B) < x(A), \text{Vector}[B, C]]$
Note that deltaX always points in positive-x direction.
6. Input: $\text{deltaY} = \text{If}[x(B) > x(A), \text{Vector}[C, B], x(B) < x(A), \text{Vector}[C, A]]$
Note that deltaY points in y direction.



7. Input: $dx = x(\text{deltaX})$
8. Input: $dy = y(\text{deltaY})$
9. Select the text tool **ABC**, click anywhere in the Graphics view. Input the text as shown.
10. Using the styling bar, set the text size and select “Absolute Position on Screen”.
11. Hide the point C and the labels of A and B.

task0.ggb

File Edit View Options Tools Window Help

Algebra

- Line
 - a: $-x + 2y = 0$
- Number
 - $dx = 4$
 - $dy = 2$
- Point
 - A = (2, 1)
 - B = (6, 3)
 - C = (6, 1)
- Vector
 - $\text{deltaX} = \begin{pmatrix} 4 \\ 0 \end{pmatrix}$
 - $\text{deltaY} = \begin{pmatrix} 0 \\ 2 \end{pmatrix}$

Graphics

Slope = $\frac{2}{4} = \frac{1}{2}$

Input:

Text

Edit

$\frac{dy}{dx} = \text{FractionText}[dy / dx]$

LaTeX formula Symbols Objects

Preview

$\frac{2}{4} = \frac{1}{2}$

Help OK Cancel