





GeoGebra Tutorial: Slope

No.	Toolbar Icon	Command	Remarks
1.		$A = (1, 2)$	Show axes and grid. Fixed to Grid.
2.		$B = (5, 4)$	Show label of A and B (Name and Value).
3.		$l = \text{Line}(A, B)$	Line Thickness: 5
4.		$p = \text{If}(x(B) > x(A), y(B) - y(A), y(A) - y(B))$	
5.		$q = \text{If}(x(B) > x(A), x(B) - x(A), x(A) - x(B))$	
6.		$gcd = \text{GCD}(q, p)$	
7.		$dy = p / gcd$	
8.		$dx = q / gcd$	
9.		$L = \text{If}(x(B) > x(A), A, B)$	Hide it.
10.		$R = \text{If}(x(B) > x(A), B, A)$	Hide it
11.		$C = (x(R), y(L))$	
12.		$u = \text{Vector}((1, 0))$	Hide it.
13.		$v = \text{UnitVector}(\text{Vector}(C, R))$	Hide it.
14.		$\text{listX} = \text{Sequence}(\text{Vector}(L + i * u, L + (i + 1) * u), i, 0, x(R) - x(L) - 1)$	Color: red Line Thickness: 7
15.		$\text{listY} = \text{Sequence}(\text{Vector}(C + i * v, C + (i + 1) * v), i, 0, \text{abs}(y(C) - y(R)) - 1)$	Color: red Line Thickness: 7
16.		$\text{listTriangle} = \text{Sequence}(\text{Polygon}(L + (i - 1) * (dx, dy), L + (i * dx, (i - 1) * dy), L + i * (dx, dy)), i, 1, gcd)$	Color: orange Opacity: 35 See Figure 1. Condition to Show Object: $gcd > 1$
17.		Show Graphics 2. Hide axes and grid. Change the background color to light yellow.	
18.	ABC	$\text{\text{\text{\text{\frac{p}{q}}}}}$	LaTeX formula Serif font, Large size
19.	ABC	$= \text{FractionText}(p/q)$	LaTeX formula Serif font, Large size Condition to Show Object: $gcd > 1$
20.		<p>Insert a checkbox with caption "Show Axes". Rename it as "box".</p> <p>On Update Script:</p> <pre>ShowAxes(1, box) setLabelMode(A, If(box, 1, 3)) setLabelMode(B, If(box, 1, 3))</pre>	

No.	Toolbar Icon	Command	Remarks
21.		Hide C. Press Ctrl+Shift+D to toggle "Selection Allowed" for all objects except points.	See Figure 2.

A more sophisticated version of this applet is available on <https://ggbm.at/BexuzZCs>.

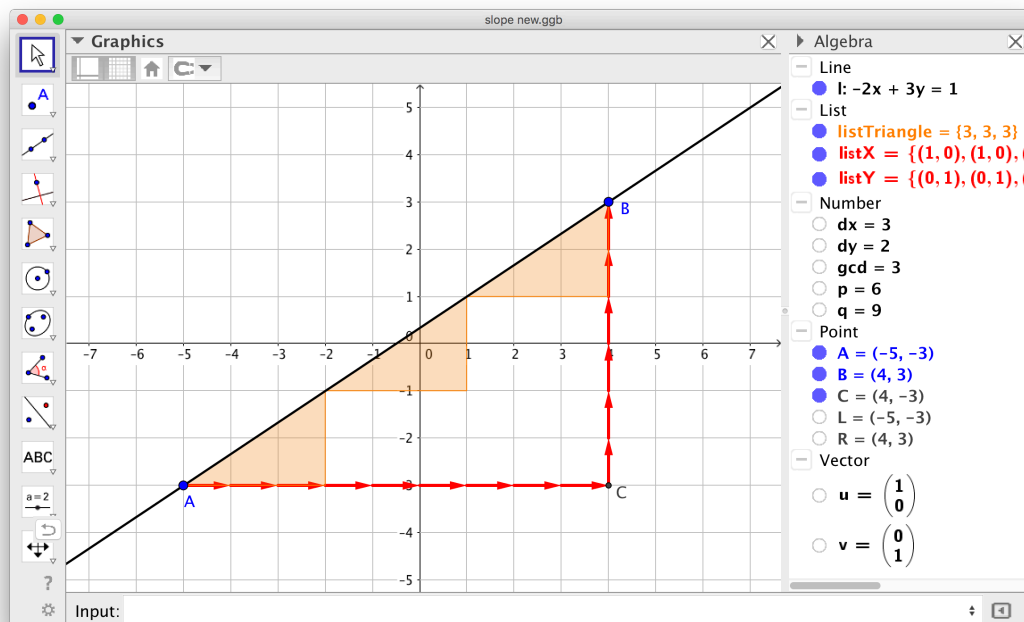


Figure 1

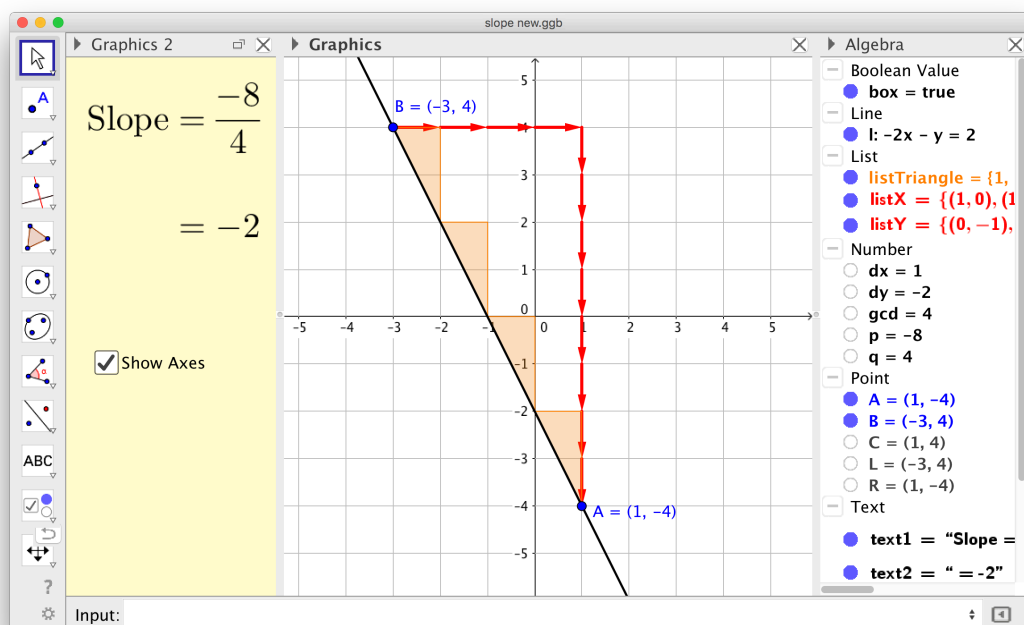


Figure 2