


GeoGebra Tutorial: Directed Numbers

No.	Toolbar Icon	Command	Remarks
1.		MaxNum=15	
2.		list1=Sequence(If(i > 0, "\$+", "\$") + (Text(i)) + "\$", i, -MaxNum, MaxNum)	list1 = {"\$-15\$", "\$-14\$", "\$-13\$", "\$-12\$", "\$-11\$", "\$-10\$", "\$-9\$", "\$-8\$", "\$-7\$", "\$-6\$", "\$-5\$", "\$-4\$", "\$-3\$", "\$-2\$", "\$-1\$", "\$0\$", "\$+1\$", "\$+2\$", "\$+3\$", "\$+4\$", "\$+5\$", "\$+6\$", "\$+7\$", "\$+8\$", "\$+9\$", "\$+10\$", "\$+11\$", "\$+12\$", "\$+13\$", "\$+14\$", "\$+15\$"} Draw as drop-down list Caption: Choose : Show Label Serif font, Large size, Black
3.		a=SelectedIndex(list1) - MaxNum - 1	
4.		list2=Sequence(If(i > 0, "\$+", "\$") + (Text(i)) + "\$", i, -MaxNum, MaxNum)	list2 = {"\$-15\$", "\$-14\$", "\$-13\$", "\$-12\$", "\$-11\$", "\$-10\$", "\$-9\$", "\$-8\$", "\$-7\$", "\$-6\$", "\$-5\$", "\$-4\$", "\$-3\$", "\$-2\$", "\$-1\$", "\$0\$", "\$+1\$", "\$+2\$", "\$+3\$", "\$+4\$", "\$+5\$", "\$+6\$", "\$+7\$", "\$+8\$", "\$+9\$", "\$+10\$", "\$+11\$", "\$+12\$", "\$+13\$", "\$+14\$", "\$+15\$"} Draw as drop-down list Caption: Choose : Show Label Serif font, Large size, Black
5.		b=SelectedIndex(list2) - MaxNum - 1	
6.	ABC	<input type="text" value="a"/> <input "")"="" +",="" type="text" value="If(b ≥ 0, "/> <input type="text" value="b"/> =?	See Figure 1. renamed as textQuestion LaTeX formula, Large size Absolution Position On Screen

No.	Toolbar Icon	Command	Remarks
7.	ABC	Start at 0. <code>If(a>=0,"Move up for "+(Text(abs(a))), "Move down for "+(Text(abs(a)))) unit If(abs(a)>1,"s","")</code> .	renamed as textStep1 Absolution Position On Screen
8.	ABC	Then <code>If(b>=0,"move up for "+(Text(abs(b))), "move down for "+(Text(abs(b)))) unit If(abs(b)>1,"s","")</code> .	renamed as textStep2 Absolution Position On Screen
9.	ABC	The destination is <code>a+b</code> .	renamed as textStep3 Absolution Position On Screen
10.	ABC	<code>a If(b ≥ 0, "+", "") b =</code> <code>a+b</code>	renamed as textAnswer LaTex formula, Large size Absolution Position On Screen
11.		Insert a button named button1 Caption: Random On Click Script (see Figure 2): <code>SetValue(list1,RandomBetween(1,2*MaxNum+1))</code> <code>SetValue(list2,RandomBetween(1,2*MaxNum+1))</code>	
12.		<code>u=Vector((0.5,0),(0.5,a))</code>	Color: red, Line Thickness: 5
13.		<code>v=Vector((1,a),(1,a+b))</code>	Color: red, Line Thickness: 5
14.			Hide grid and xAxis. yAxis Distance: 1 Press <code>Ctrl+Shift+D</code> to toggle "Selection Allowed" for all objects. See Figure 3.

A more sophisticated version of this applet is available on <https://ggbm.at/TukBNuG2> .

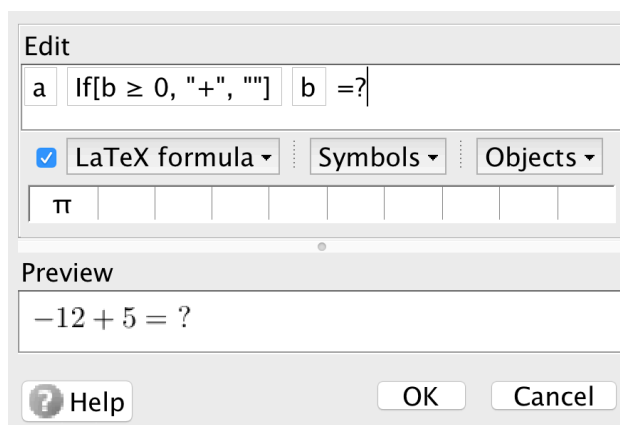


Figure 1

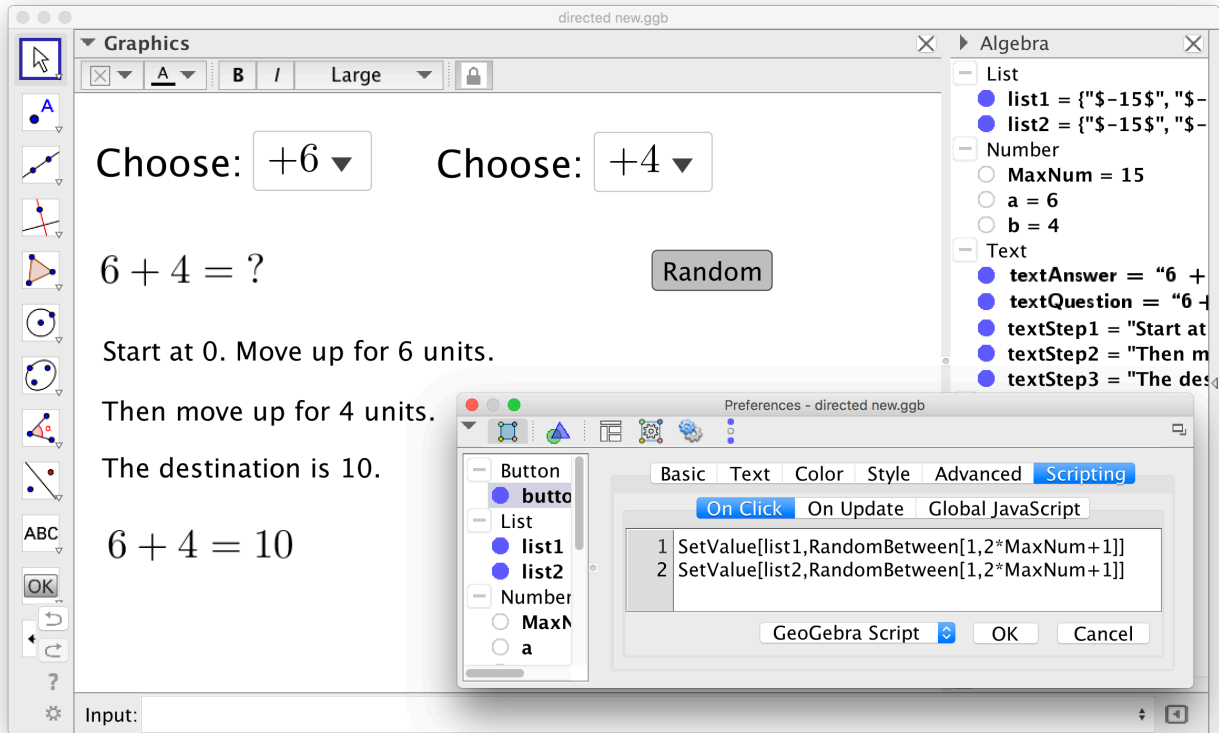


Figure 2

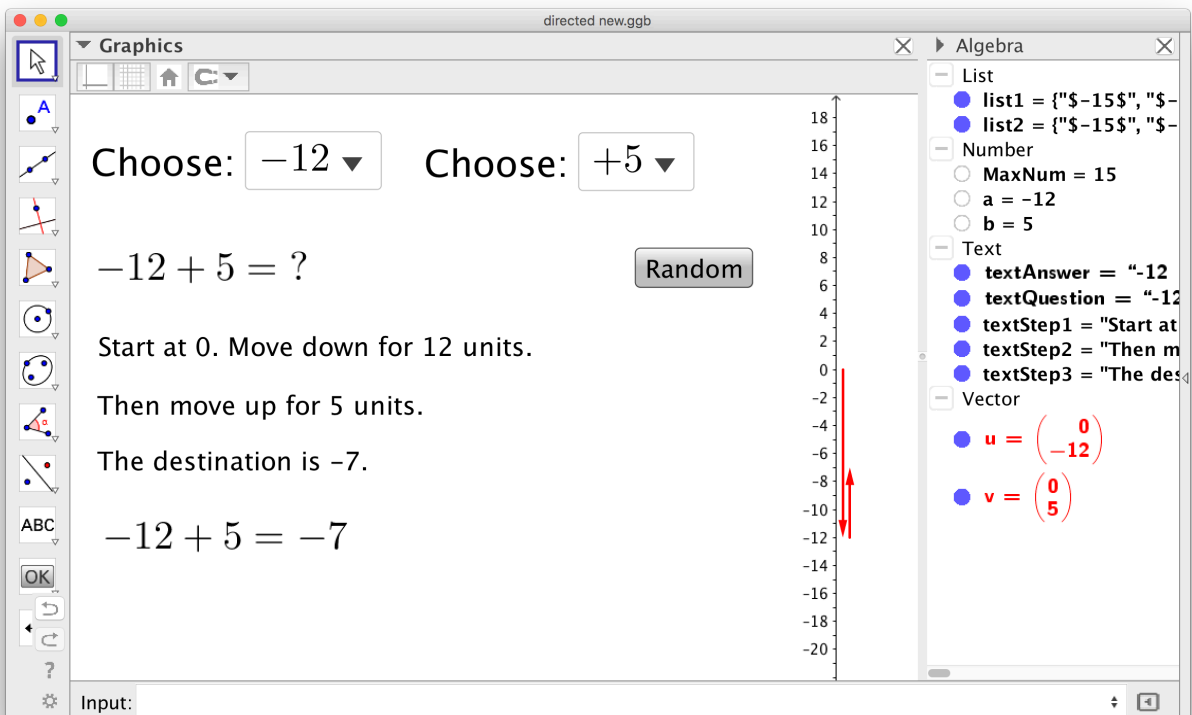


Figure 3