

GeoGebra Tutorial: Inequality Quiz

No.	Toolbar Icon	Command	Remarks
1.		<code>qtype=RandomBetween(1,3)</code>	Question type 1: $ax > b$ or $ax < b$ Question type 2: $x/a > b$ or $x/a < b$ Question type 3: $x+a > k$ or $x+a < k$
2.		<code>list1=Remove(Sequence(i,i,-9,9),{0,1})</code>	<code>list1={-9,-8,-7,-6,-5,-4,-3,-2,-1,2,3,4,5,6,7,8,9}</code>
3.		<code>s_0=RandomElement({-1,1})</code>	
4.		<code>s=If(s_0==1,">","<")</code>	Hide it.
5.		<code>s'=If(s_0==1,"<",>")</code>	Hide it.
6.		<code>a=RandomElement(list1)</code>	
7.		<code>k=RandomElement(list1)</code>	
8.		<code>b=k*a</code>	
9.		<code>listPosition=Shuffle(({0,0},{5,0}))</code>	Hide it.
10.		<code>P=(5,0)</code>	
11.		<code>Q=(0,0)</code>	
12.		<code>marks=0</code>	
13.		<code>marks = marks</code>	renamed as textMarks Absolute Position On Screen See Figure 1.
14.		<code>lockMarks=false</code>	
15.		<code>textYes="Correct!"</code>	Position: P-(0,3) Color: red
16.		<code>textNo="Incorrect"</code>	Position: Q-(0,3) Color: red
17.		Insert a button named button1 Captain: Next On Click Script (see Figure 2): <pre>UpdateConstruction() SetValue(P,listPosition(1)) SetValue(Q,listPosition(2)) SetValue(lockMarks,false) SetVisibleInView(button1,1,false) SetVisibleInView(textYes,1,false) SetVisibleInView(textNo,1,false)</pre>	

No.	Toolbar Icon	Command	Remarks
18.		<code>var=RandomElement({"a","b","m","n","p","k","x","y"})</code>	Hide it.
19.	ABC	<code>If(a== -1,"-",Text(a))</code> <code>var</code> <code>s</code> <code>b</code>	LaTeX formula renamed as textQ1 See Figure 3.
20.	ABC	<code>var</code> <code>If(a>0,s,s')</code> <code>\frac{ b }{ a } \\\</code> <code>\vspace{30pt}</code> <code>var</code> <code>If(a>0,s,s')</code> <code>b/a</code>	LaTeX formula renamed as text1correct See Figure 4.
21.	ABC	<code>var</code> <code>If(a>0,s',s)</code> <code>\frac{ b }{ a } \\\</code> <code>\vspace{30pt}</code> <code>var</code> <code>If(a>0,s',s)</code> <code>b/a</code>	LaTeX formula renamed as text1wrong
22.	ABC	<code>\frac{ var }{ a } s k</code>	LaTeX formula renamed as textQ2
23.	ABC	<code>var</code> <code>If(a>0,s,s')</code> <code>k (a)\\</code> <code>\vspace{30pt}</code> <code>var</code> <code>If(a>0,s,s')</code> <code>k*a</code>	LaTeX formula renamed as text2correct
24.	ABC	<code>var</code> <code>If(a>0,s',s)</code> <code>k (a)\\</code> <code>\vspace{30pt}</code> <code>var</code> <code>If(a>0,s',s)</code> <code>k*a</code>	LaTeX formula renamed as text2wrong
25.	ABC	<code>var</code> <code>If(a>0,"+","-")</code> <code>abs(a)</code> <code>s</code> <code>k</code>	LaTeX formula renamed as textQ3
26.	ABC	<code>var</code> <code>s</code> <code>k</code> <code>If(a>0,"-","+")</code> <code>abs(a) \\\</code> <code>\vspace{30pt}</code> <code>var</code> <code>s</code> <code>k-a</code>	LaTeX formula renamed as text3correct
27.	ABC	<code>var</code> <code>s'</code> <code>k</code> <code>If(a>0,"-","+")</code> <code>abs(a) \\\</code> <code>\vspace{30pt}</code> <code>var</code> <code>s'</code> <code>k-a</code>	LaTeX formula renamed as text3wrong See Figure 5.

No.	Toolbar Icon	Command	Remarks
28.	ABC	$\text{\texttt{\textbackslash text\{Solve }}}$ $\text{\texttt{If (qtype==1,textQ1,qtype=}}$ $\text{\texttt{=2,textQ2,textQ3)}} \text{\texttt{\textbackslash ;.}}$ Remark: This is equivalent to $\text{\texttt{\textbackslash text\{Solve }}}$ $\text{\texttt{If (qtype==1,textQ1,If (qtype=}}$ $\text{\texttt{pe==2,textQ2,textQ3))}} \text{\texttt{\textbackslash ;.}}$ See https://www.geogebra.org/manual/en/If_Command.	LaTeX formula renamed as textQuestion Serif font, Large size Hide the previous 9 texts. Set all texts to "Absolute Position On Screen"
29.		$\text{textCorrect=If (qtype==1, text1correct,qtype==2, text2correct, text3correct)}$	Serif font, Large size Light yellow background Position: P On Click Script: $\text{SetValue(marks,If(lockMarks,marks,marks+1))}$ $\text{SetValue(lockMarks,true)}$ $\text{SetVisibleInView(textYes,1,true)}$ $\text{SetVisibleInView(button1,1,true)}$
30.		$\text{textWrong=If (qtype==1, text1wrong,qtype==2, text2wrong, text3wrong)}$	Serif font, Large size Light yellow background Position: Q On Click Script: $\text{SetValue(marks,If(lockMarks,marks,marks-1))}$ $\text{SetValue(lockMarks,true)}$ $\text{SetVisibleInView(textNo,1,true)}$ $\text{SetVisibleInView(button1,1,true)}$
31.			Hide P, Q, grid and axes. Fix all texts. See Figure 6.

A more sophisticated version of this applet is available on <https://ggbm.at/JWsky25C>.

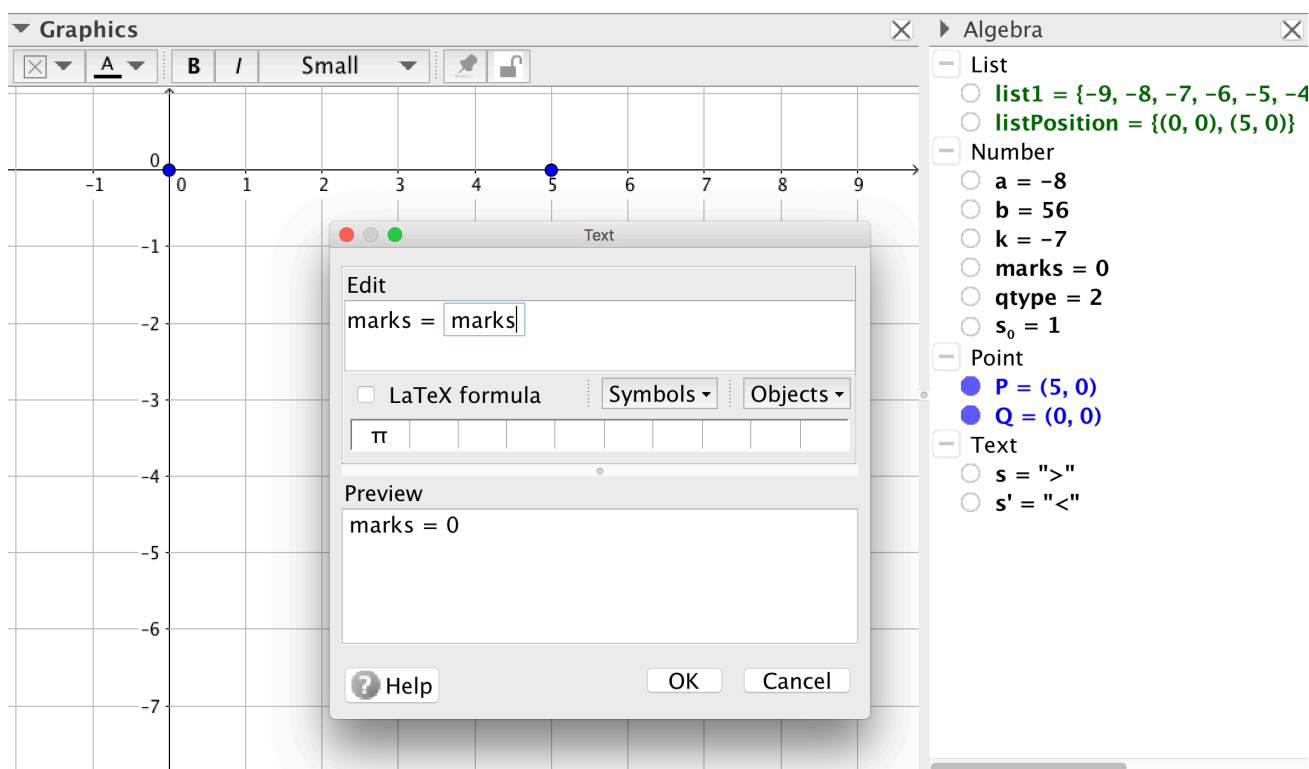


Figure 1

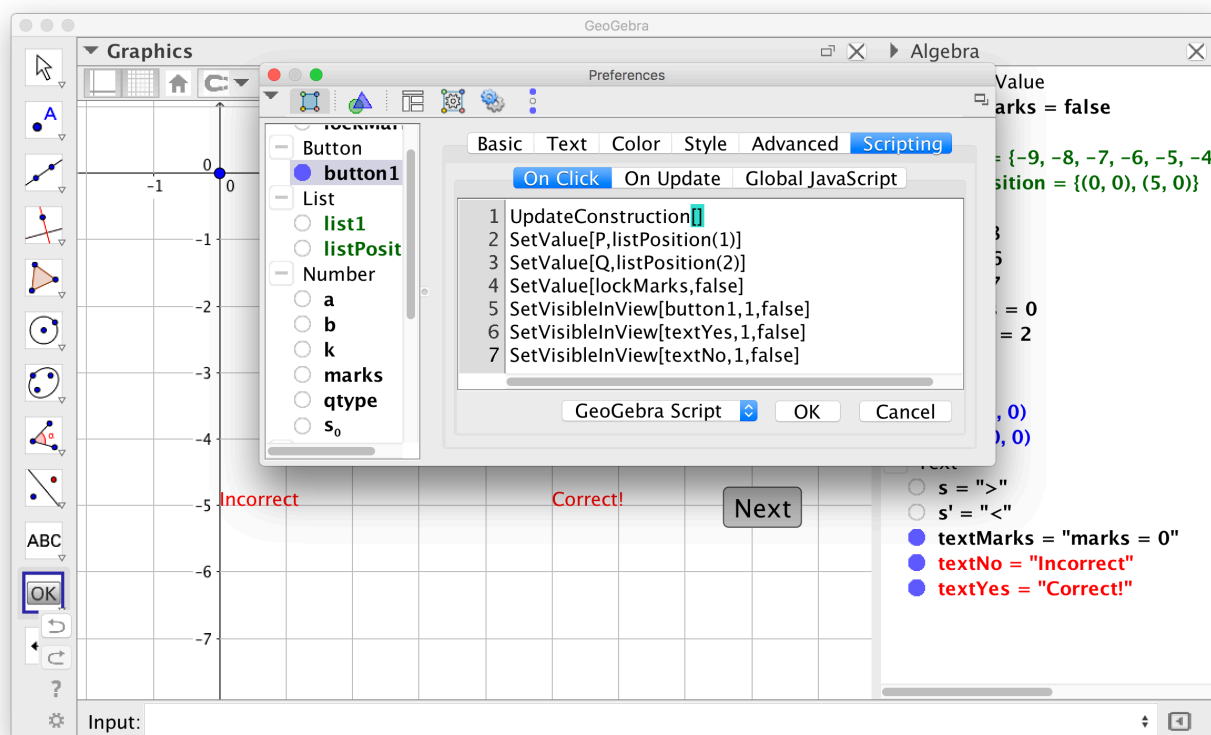


Figure 2

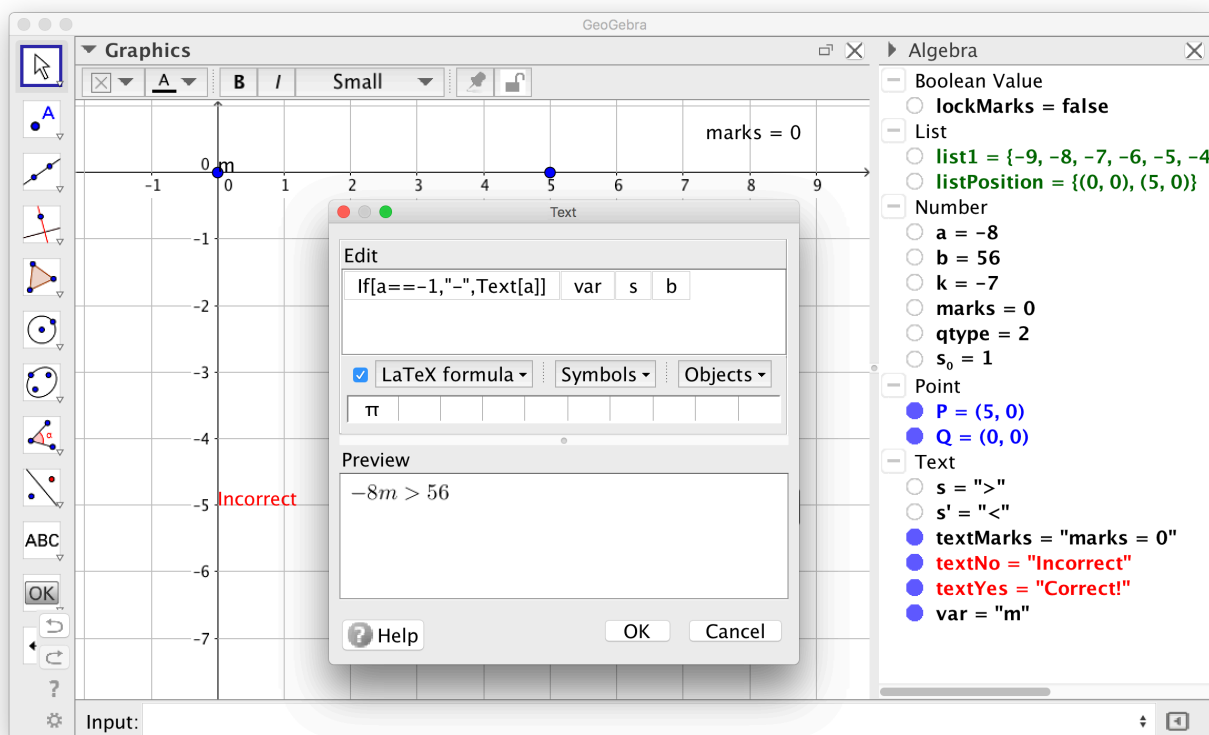


Figure 3

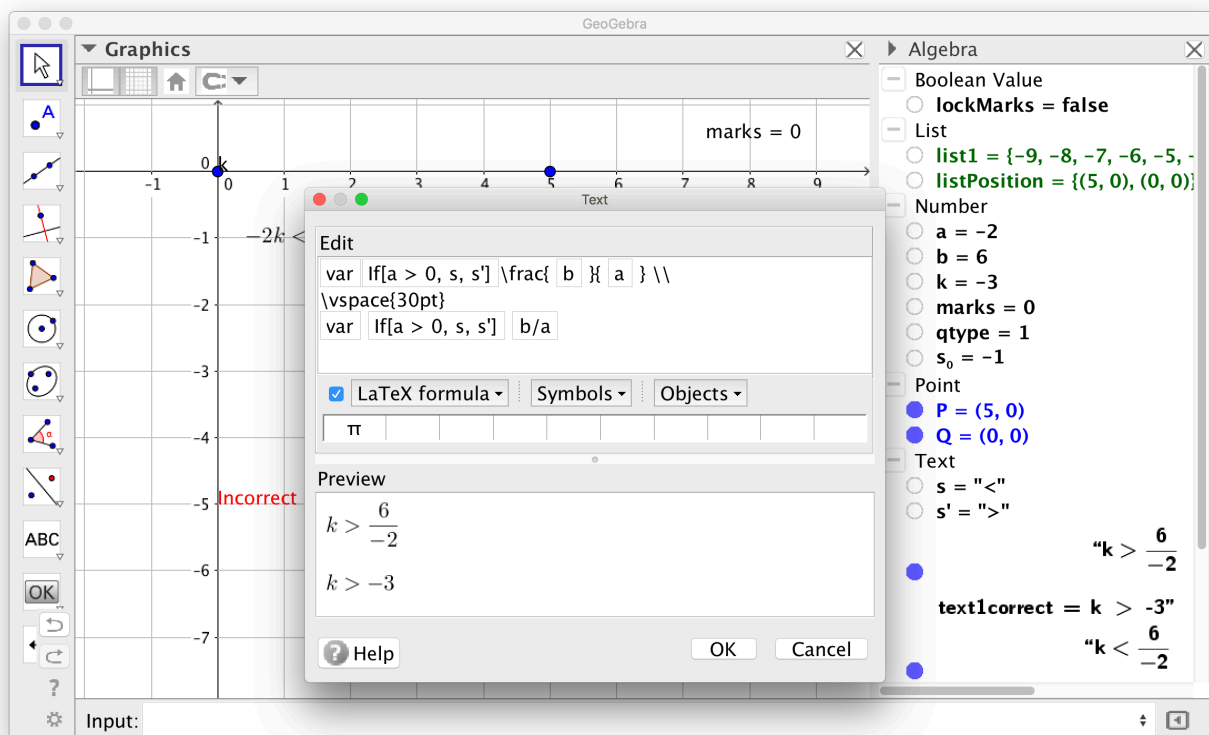


Figure 4

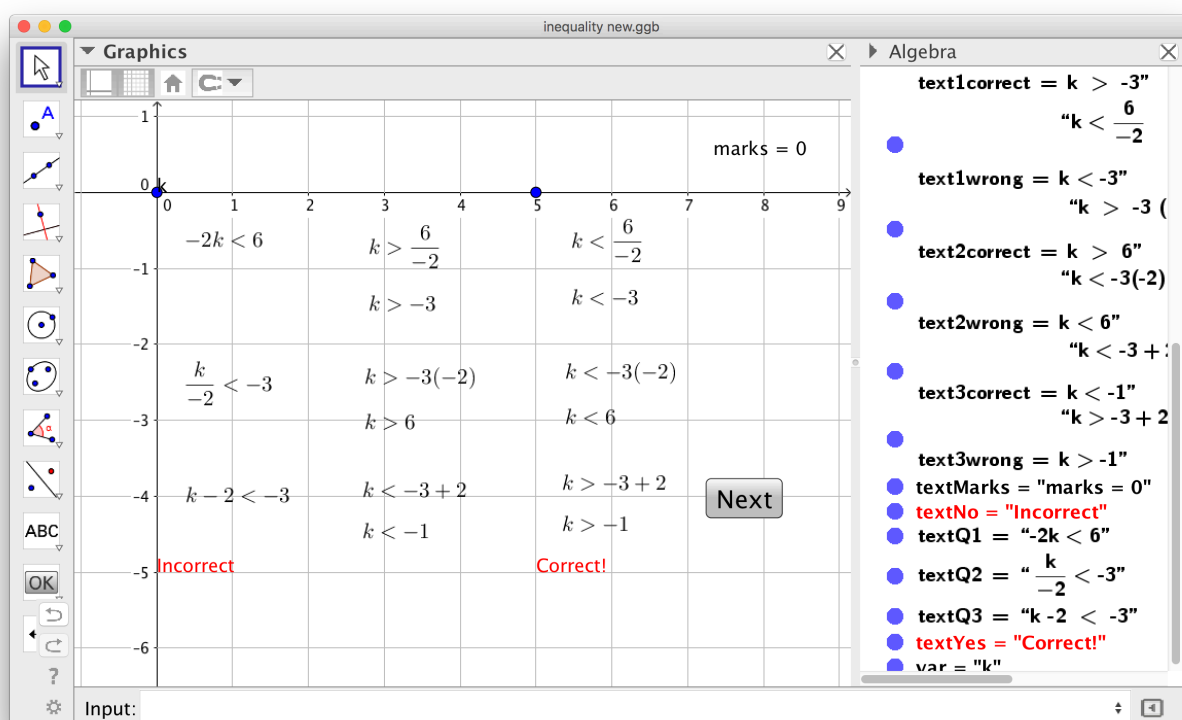


Figure 5

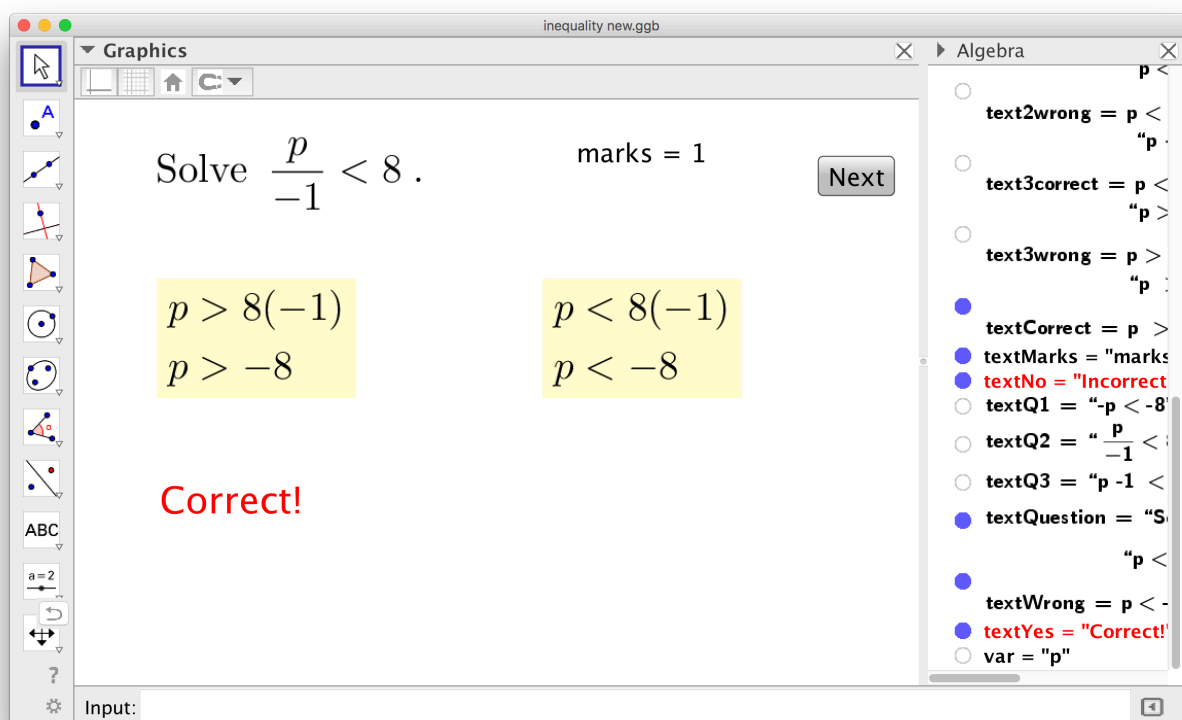


Figure 6