On the use of GeoGebra for examining functions

Đurđica Takači
Faculty of Sciences
Department of mathematics and informatics
Novi Sad, Serbia

I would be very glad to discuss about the students opinion in using Geogebra in secondary school. I am working with talented students 16-17 years old talented students. They are familiar with the programme package Geogebra, and they have computer laboratory, each student has the computer.

Of course, I am teaching them with the help of Geogebra, but also, I am asking questions and giving them exercises to do by them.

Therefore there are lot of student's interesting questions and remarks about Geogebra.

I shall point out some of the problems that students solved.

For example, some of them start to examine logarithmic function, as natural, treated it as the inverse function of corresponding exponential function. They tried to draw the curve symmetric to the line $y = x$. They could not do this, and then they find different ways how to present it (see Figure 1).
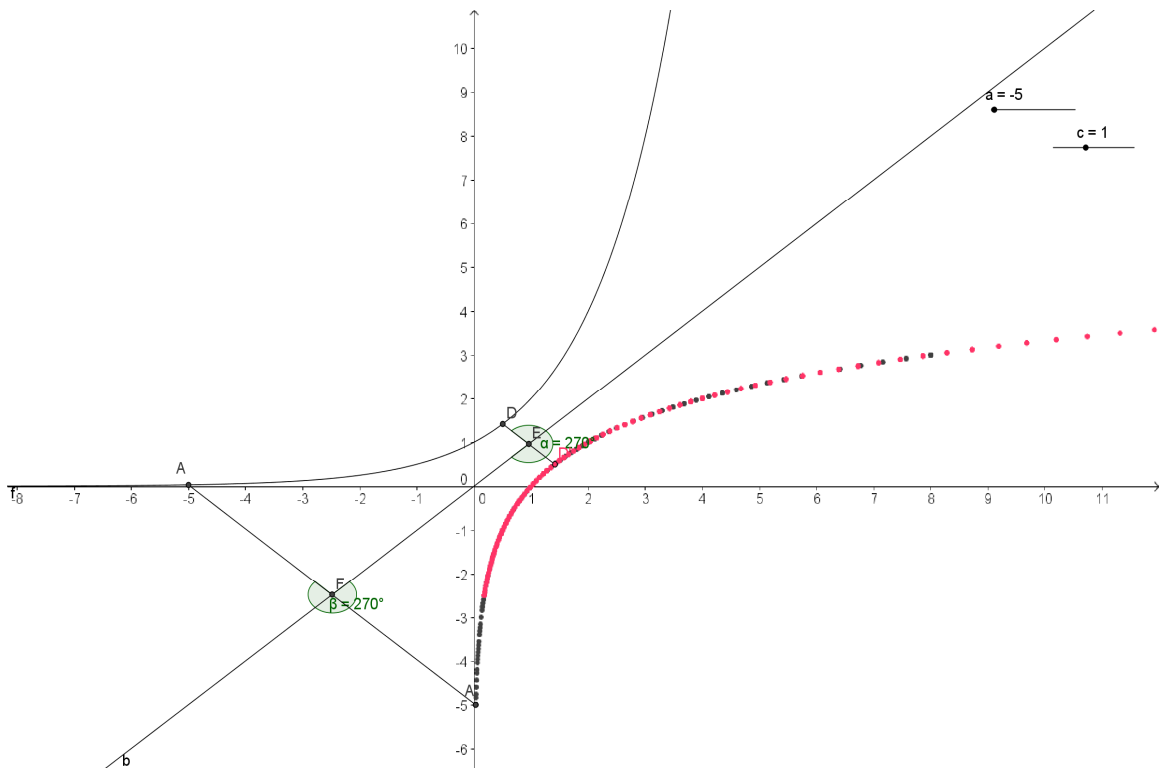

Figure 1.

Further on, they use logarithmic function to show the properties of logarithmic. They use sliders and they also found that mostly it appears "log0".

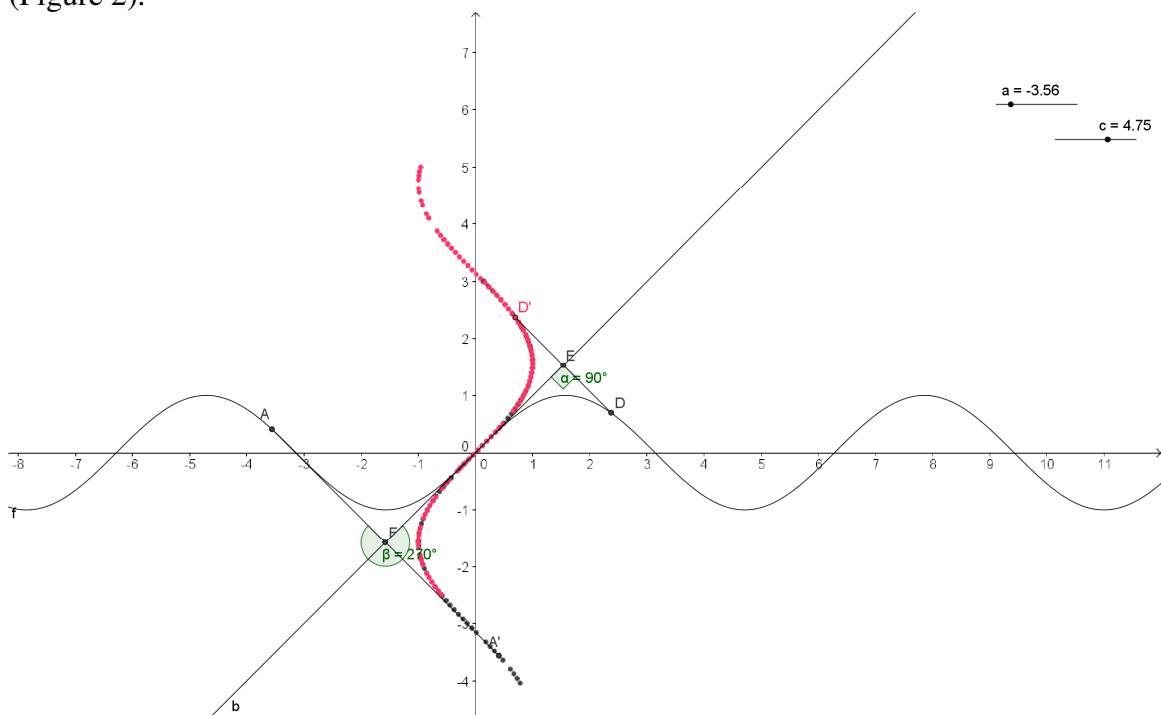Analogously, the students constructed the inverse transform of the function $f(x) = \sin(x)$ (Figure 2).

Figure 2.