Visualization of elementary functions and their properties

MIRA TASHKOVA^{*}, ZORAN TRIFUNOV[†] *SVMS Kole Nedelkovski Veles [†]University Mother Tereza, Faculty of Technical Science Skopje

With the recent changes in education in Macedonia, the number of mathematics classes is reduced or remains very small, both in high schools and in secondary vocational technical schools. But in order for students to be future successful engineers, they need to have a good knowledge of mathematics. So, in these conditions we have to find a way to achieve the same thing. The application of software and their use in studying mathematics is one of the ways to achieve the desired better results. The dynamic software will allow the students to successfully master the planned contents of mathematics, while maintaining the interest of the students, during which they will apply their knowledge from professional subjects. In this paper we will present how with the help of the free software GeoGebra we will visually represent the functions and with dynamic applets we will determine: definition area, set of values, zeros, monotonicity, etc. We will also present some elementary functions with applets that will also have sliders which will dynamically change the functions and determine their properties. All these applets are available on the web and the students themselves will be able to use them when acquiring new knowledge in mathematics.