

This diploma thesis describes historical evolution of calculation of sphere's volume and surface and provides an analysis of textbooks for secondary and primary schools. It is made with the intention to inspire high school teachers with various approaches of teaching the volume and surface of solid bodies. It can help teachers with motivation of students as well as with selection of textbook and teaching methods for the issue. This thesis is meant to inspire high school students interested in history of mathematics, too. It includes analysis of preserved exercises on the topic from ancient Egypt and Mesopotamia as well as findings from Archimedes' works, which were devoted to this topic. Moreover it describes contribution of enlighteners on the subject and shows exact procedures of derivation of formulas using integral calculus.