

**TITLE:**

Diophantine equations

**SUMMARY:**

The thesis focuses on Diophantine Equations. Linear and quadratic Diophantine Equations of two and three variables and some types of their systems are described.

At the beginning of the thesis, information about Diophantus, who gave the name to the equations, is presented. Next, equations and their systems are summarized. The main section focuses on standard types of Diophantine equations and their systems and their solving strategies. Moreover, advantages and disadvantages of different solving methods and required mathematical knowledge are compared.

**KEYWORDS:**

Diophantine equations, equations, system of equations, Diophantus of Alexandria