POVZETEK

V diplomskem delu spoznamo praktično uporabo naravnih števil in postopen prehod na abstraktno matematiko (odkrivanje iracionalnih, kompleksnih števil). Opisana so popolna in Mersennova števila ter njihova pomembnost pri odkrivanju praštevil. Navedenih je nekaj izrekov o praštevilih (Wilsonova trditev, Eulerjev kriterij, Gaussova lema,...), natančno pa so predstavljene tudi pitagorejske trojice in njihove lastnosti.

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Ključne besede: iracionalna števila, negativna števila, kompleksna števila, figurativna števila, popolna števila, praštevila, Mersennova števila, Legendrov simbol, Fermatov mali izrek, Wilsonova trditev, Eulerjev kriterij, Gaussova lema, kvadratni ostanek, kvadratni recipročnostni zakon, pitagorejske trojice, pravilo o določitvi višine in širine

Keywords: irrational numbers, negative numbers, complex numbers, figurate numbers, perfect numbers, prime numbers, Mersenne numbers, Legendre symbol, Fermat's little theorem, Wilson's theorem, Euler's criterion, Gauss' lemma, quadratic residue, the law of quadratic reciprocity, Pythagorean triples, Height-excess enumeration theorem

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