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A mathematical paradise (The world of infinity). Pt. II.

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Author's abstract: Many of the unsolved problems of today concern the question 'How many?' Various number sets are obviously finite, such as the set of even primes, and some are just as evidently in the infinite category. The latter encompasses such sets as the counting numbers, the integers and the rationals. Others required a careful analysis before the conclusion of infinitude was established. The classical problem of the cardinality of the primes, resolved by Euclid in the Elements, provides a well-known example. However, a vast assortment of present day explorations continues to demand the mathematician's best efforts. Among these are the many conjectures and failed attempts concerning prime number types (Mersenne primes, Fermat primes, twin primes, and more).

Classification: E60 F60

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