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Abstracts of Short Communications and Posters

Section:

3. Number Theory and Arithmetic Algebraic Geometry

1991 MS Classification:

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A Curious Convergent Series with Reciprocals of Primes

By deleting some certain type of prime numbers, we thin out the following classic and famous series (over primes p)

$$\sum \frac{1}{p} = \frac{1}{2} + \frac{1}{3} + \frac{1}{5} + \frac{1}{7} + \cdots.$$

An interesting convergent series with reciprocals of especial primes will be obtained. Also, some historical notes with some remarkable new results about the subseries of the harmonic series will be discussed. Finally, three open problems will be presented for additional challenges.

Reference: G. H. Behforooz: Thinning out the Harmonic Series, *Mathematics Magazine, MAA(Mathematical Association of America),* vol. 68, no 4. (1995), 289–293.