

Syracuse, 26/9-48

Kjære Sigismund,

# BULLETIN

(NEW SERIES)

of the

AMERICAN MATHEMATICAL SOCIETY

Definitioner:  $\theta(x) = \sum_{p \leq x} \log p$

(2)  $\theta(x) = \sum_{p \leq x} \log p$ ,  $\theta_1(x) = \sum_{p \leq x} \log^2 p$  og  $\theta_2(x) = \sum_{p \leq x} \log^3 p$

(3)  $\sum_{p \leq x} \frac{\log^k p}{p} = \log^k x + O(1)$ , samt  $\theta_1(x) = O(x)$

1. Bevis at gennemlogaritmerne: for  $x$  positive og  $d$  pos. helt tal

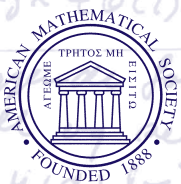
$$\theta_d = \theta_{d,x} = \sum_{p \leq x} \log^d \frac{x}{p}$$

og hvis  $m$  er hel, positiv

$$\theta_m = \theta_{m,x} = \sum_{d|m} \theta_d$$

Da er

(4)  $\theta_m = \begin{cases} \log^m p \log \frac{x}{p}, & \text{for } m \text{ potens af primtallet } p. \\ \sum_{d|m} \log^d p \log \frac{x}{p}, & \text{for } m = p^k \cdot q^l \\ 0, & \text{for alle andre } m. \end{cases}$



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Articles

Susan Friedlander  
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Book Reviews

Robert L. Devaney

De 3 første dele af (4) følger umiddelbart af definitionen, den sidste del følger ved induktion, idet vi for enkelheds skyld antager  $m = p^k$ , her er for  $m = p^k$

VOLUME 45

NUMBER 4

OCTOBER 2008

$$\theta_{m,x} = \theta_{\frac{m}{p},x} - \theta_{\frac{m}{p},\frac{x}{p}}$$

Ar dette følger sidste del af (4) enkelt.

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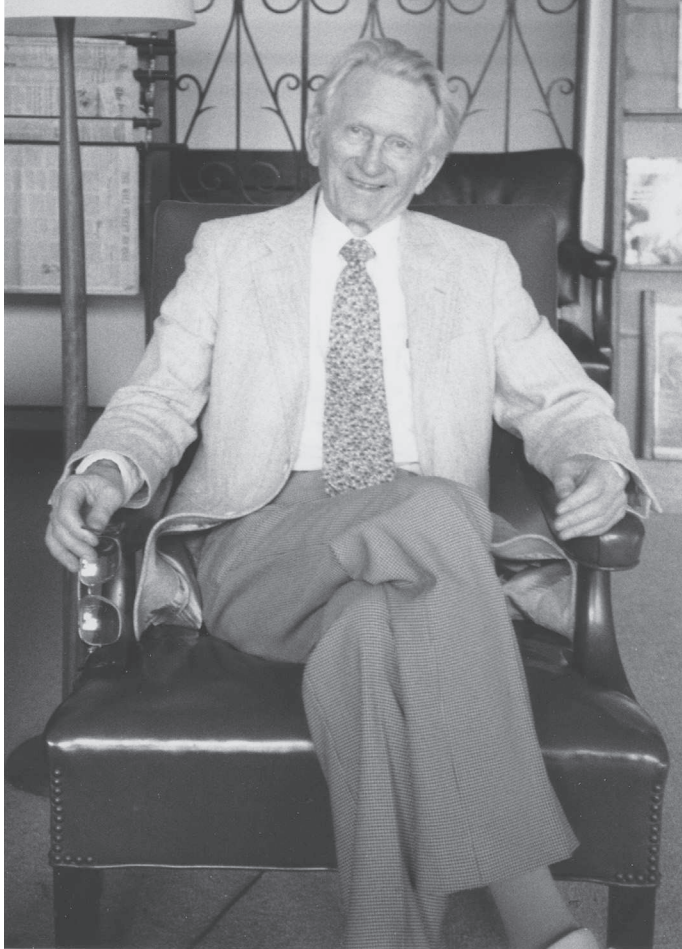
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Atle Selberg, 1917–2007  
Photo, June 1, 1992, Institute for Advanced Study

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