

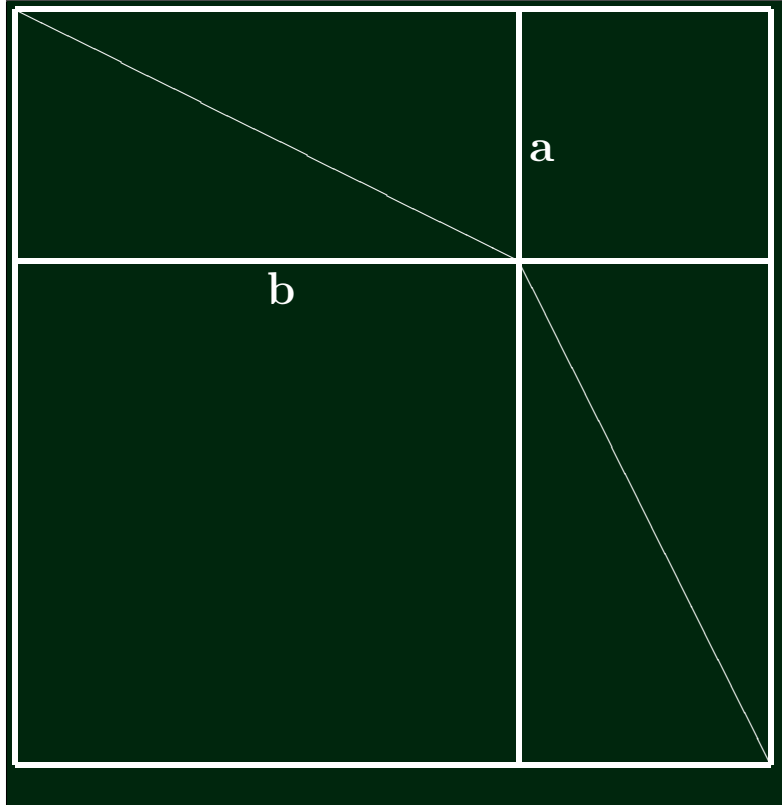
$$\Delta(z) = q \prod_{n=1}^{\infty} (1 - q^n)^{24} = \sum_{n=1}^{\infty} \tau(n) q^n = q - 24q^2 + 252q^3 + \dots$$

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$$p(z) = a_n z^n + a_{n-1} z^{n-1} + \dots + a_1 z + a_0$$

$$\lim_{r \rightarrow \infty} \frac{1}{2\pi i} \int_{c(r)} \frac{zp'(z) - np(z)}{zp(z)} dz = 0$$

$$\begin{aligned} S^1 &\xrightarrow{\cong} SO(2, \mathbb{R}) \\ e^{i\theta} &\mapsto \begin{pmatrix} \cos(\theta) & -\sin(\theta) \\ \sin(\theta) & \cos(\theta) \end{pmatrix} \end{aligned}$$



$$\begin{aligned} L(s, \chi) &= \sum_{n=1}^{\infty} \frac{\chi(n)}{n^s} \\ &= \prod_{p \text{ prime}} \left(1 - \frac{\chi(p)}{p^s} \right)^{-1} \end{aligned}$$