

9. 算平 \geq 幾平

$$\frac{1 + 2 + 2^2 + \dots + 2^{n-1}}{n} \geq \sqrt[n]{1 \times 2 \times 2^2 \times \dots \times 2^{n-1}}$$

$$\frac{1(2^n - 1)}{n} \geq \sqrt[n]{2^{\frac{n(n-1)}{2}}}$$

$$2^n - 1 \geq n\sqrt{2^{n-1}}$$

$$2^n \geq 1 + n\sqrt{2^{n-1}}$$