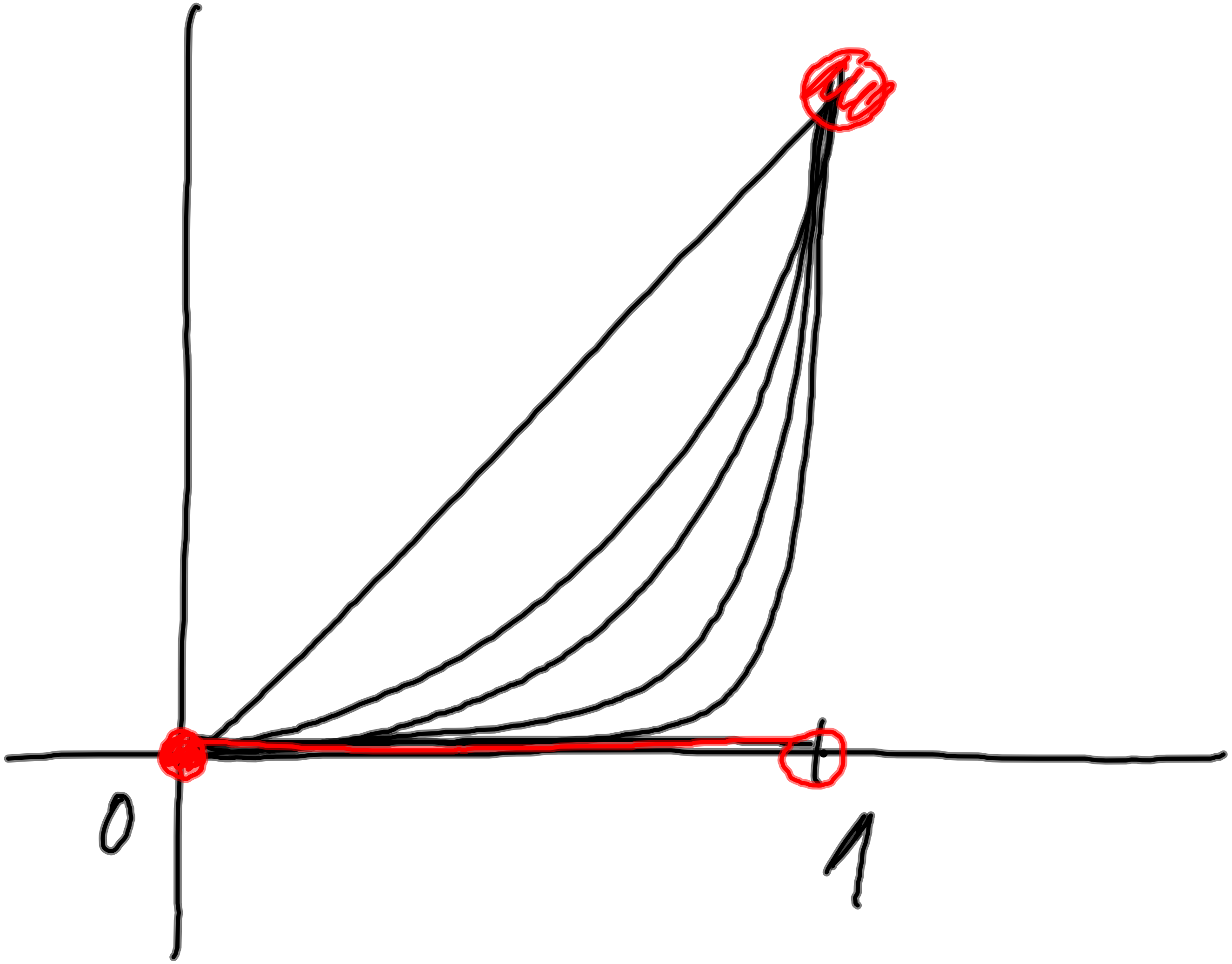
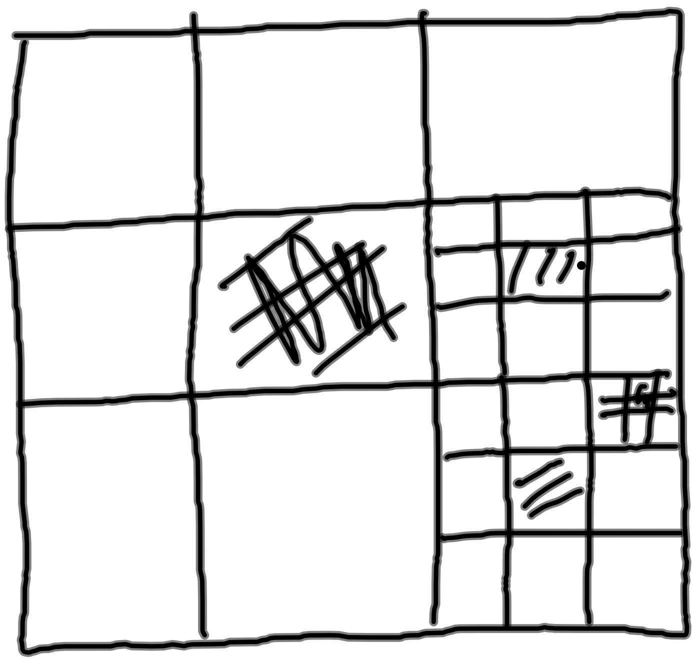

0
1

SIERP. KOB. — $S = ?$



$$S = 1 - (?) =$$

$$= 1 - \sum_{n=0}^{\infty} \frac{8^n}{9^{n+1}} =$$

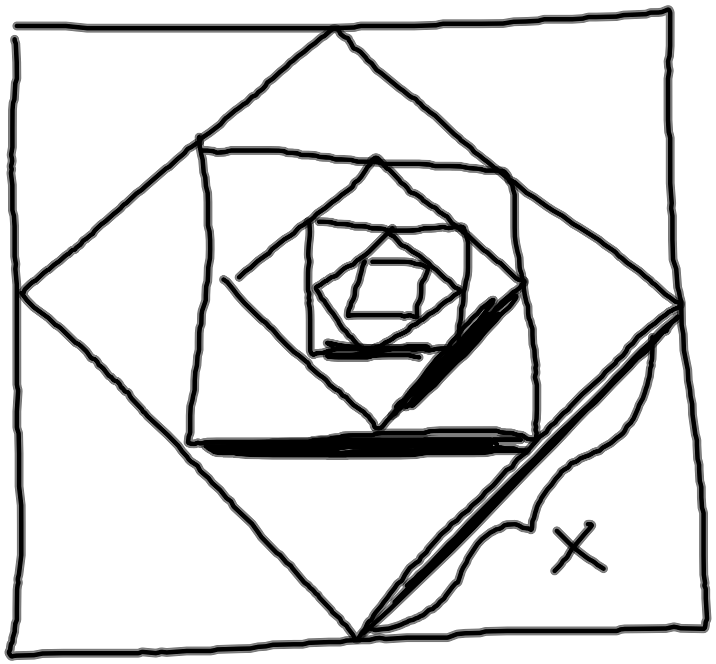
$$= 1 - \frac{1}{9} \cdot \underline{\underline{\sum_{n=0}^{\infty} \left(\frac{8}{9}\right)^n}} =$$

$$\left[\frac{1}{9} + 8 \cdot \frac{1}{9^2} + 8^2 \cdot \frac{1}{9^3} + \ldots\right] = 1 - \frac{1}{9} \cdot \frac{1}{1-\frac{8}{9}} =$$

$$= 1 - \frac{1}{9} \cdot \frac{1}{\frac{1}{9}} =$$

$$= 0$$

$a > 0$



$$S = a^2 + \frac{a^2}{2} + \frac{a^2}{4} + \dots$$

$$= a^2 \cdot \left(1 + \frac{1}{2} + \frac{1}{4} + \dots\right) =$$

$$= a^2 \cdot \sum_{n=0}^{\infty} \left(\frac{1}{2}\right)^n = \underline{\underline{2a^2}}$$

$$x^2 = \left(\frac{a}{2}\right)^2 + \left(\frac{a}{2}\right)^2 = 2\,\frac{a^2}{4} = \frac{a^2}{2}$$

$$X = \frac{a}{\sqrt{2}}$$

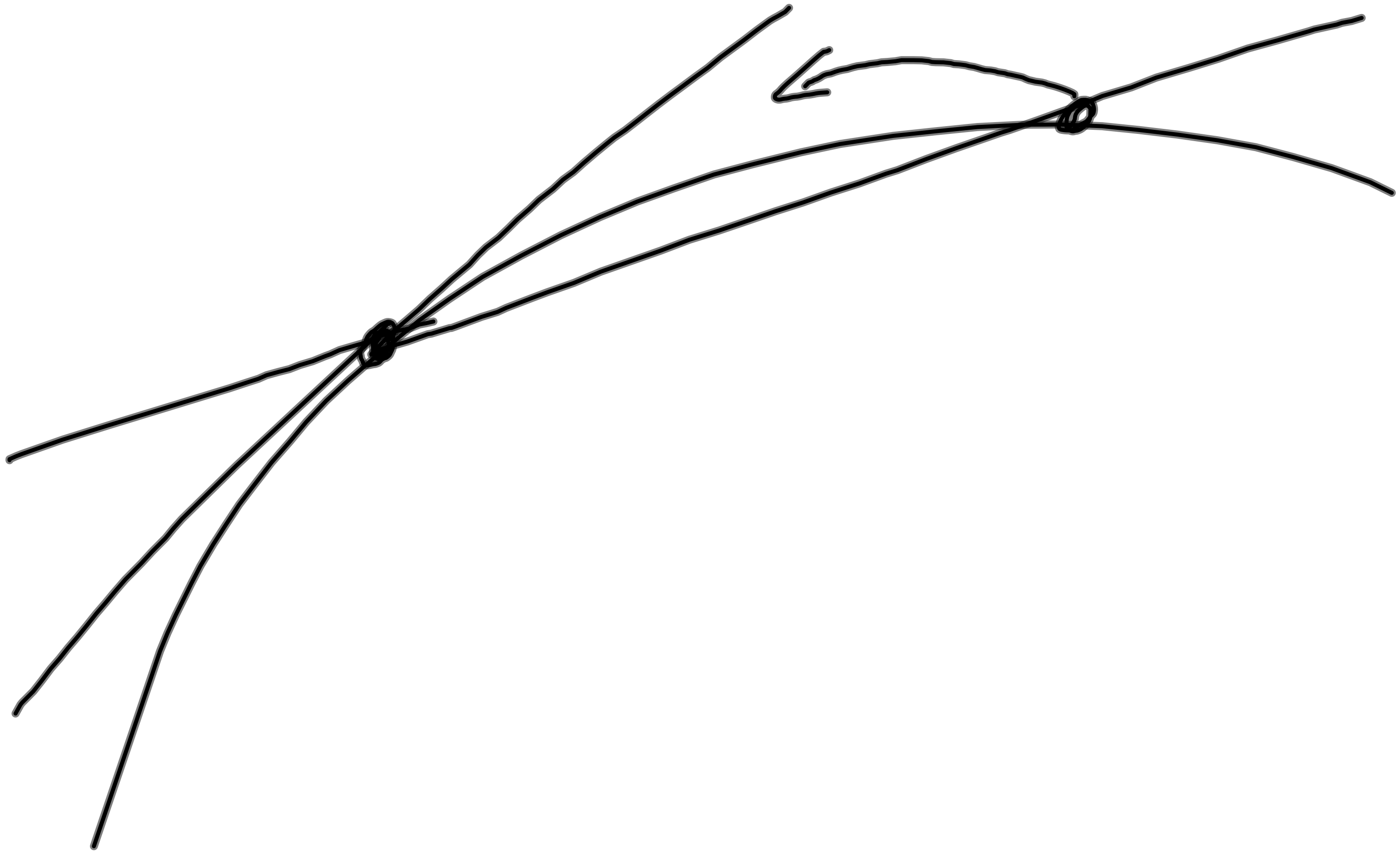
$$o = \underline{\underline{4a}} + 4 \cdot \frac{a}{\sqrt{2}} + \underline{\underline{4 \cdot \frac{a}{2}}} +$$

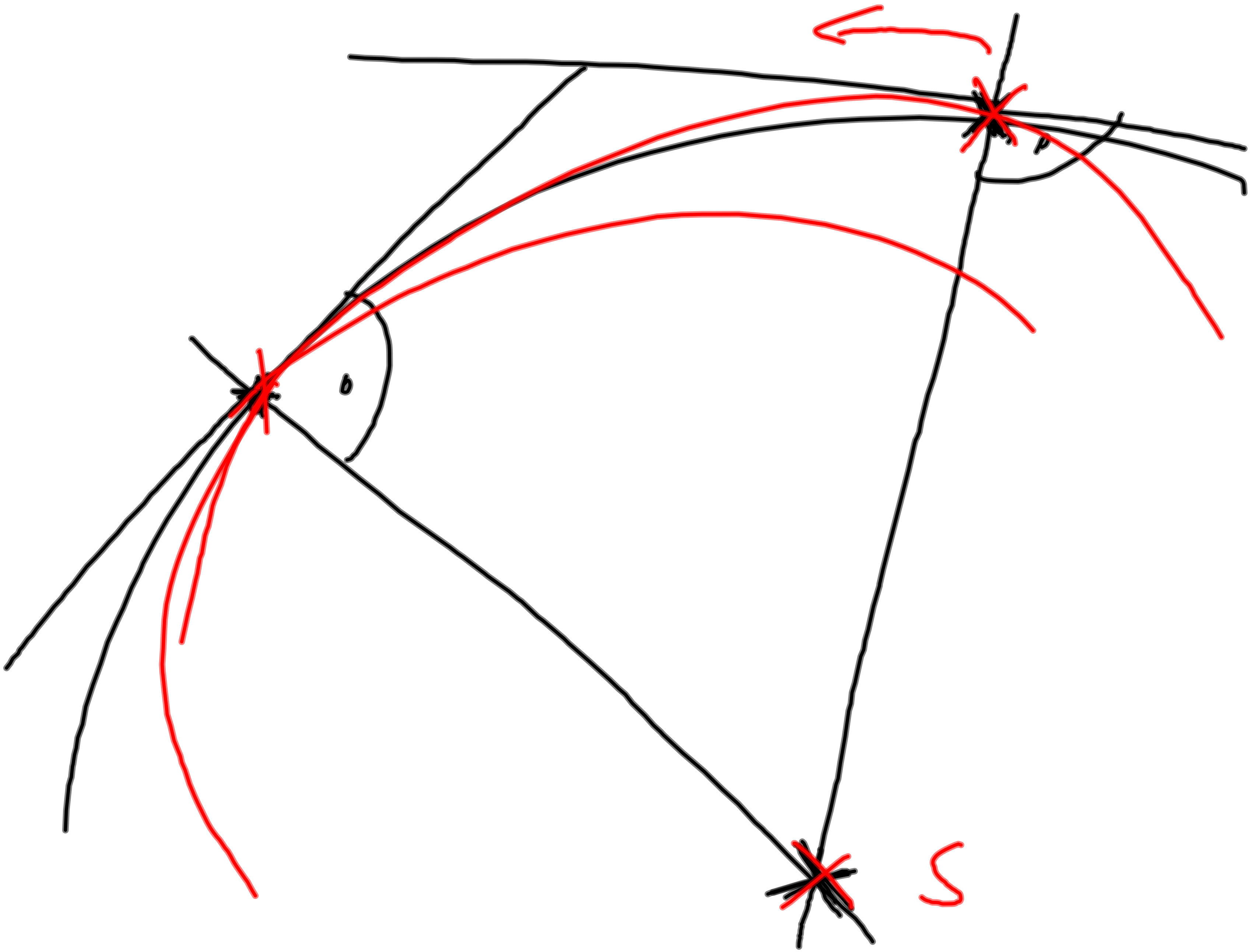
$$= \left(4a + \underline{2a} + \underline{a} + \dots\right) +$$

$$+ \left(\underline{\frac{4a}{\sqrt{2}}} + \underline{\frac{2a}{\sqrt{2}}} + \dots\right) =$$

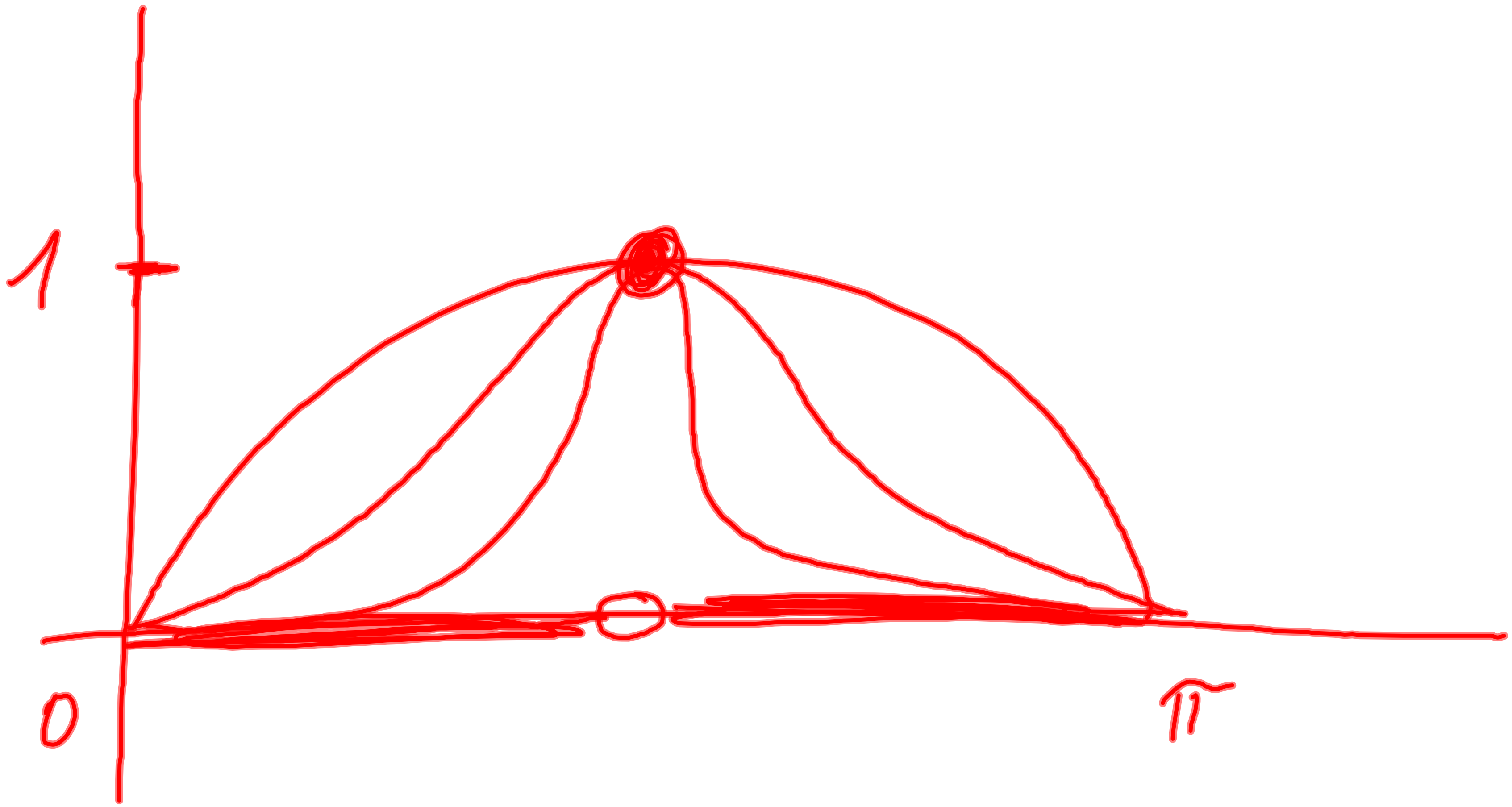
$$= \left(1 + \frac{1}{\sqrt{2}}\right) \cdot \left(4a + 2a + a + \dots\right) = \left(1 + \frac{1}{\sqrt{2}}\right) \cdot 4a \cdot$$

$$\cdot \sum_{0}^{\infty} \left(\frac{1}{2}\right)^n = 8a \cdot \left(1 + \frac{1}{\sqrt{2}}\right)$$





b
β
S


1
0
π