THE BAILEY–BORWEIN–PLOUFFE FORMULA

$$\pi = \sum_{k=0}^{\infty} \left[\frac{1}{16^k} \left(\frac{4}{8k+1} - \frac{2}{8k+4} - \frac{1}{8k+5} - \frac{1}{8k+6} \right) \right]$$

THE BASEL PROBLEM

$$\pi = \sqrt{6 \sum_{n=1}^{\infty} \frac{1}{n^2}}$$

THE MADHAVA–LEIBNIZ SERIES

$$\pi = 4 \sum_{k=0}^{\infty} \frac{(-1)^k}{2k+1}$$

A LIMITING SEQUENCE

$$\pi = \lim_{n \to \infty} \frac{a_n^2}{n}$$
$$a_0 = 1,\ a_{n+1} = \left(1 + \frac{1}{2n+1}\right) a_n$$

MONTE CARLO

$$\pi = 4 \cdot \mathbb{P}(X^2 + Y^2 < 1)$$
$$X, Y \sim \mathcal{U}(0, 1)$$

VIÈTE'S FORMULA

$$\pi = 2 \left(\frac{\sqrt{2}}{2} \cdot \frac{\sqrt{2+\sqrt{2}}}{2} \cdot \frac{\sqrt{2+\sqrt{2+\sqrt{2}}}}{2} \cdots \right)^{-1}$$

THE WALLIS PRODUCT

$$\pi = \prod_{n=1}^{\infty} \frac{4n^2}{4n^2-1}$$