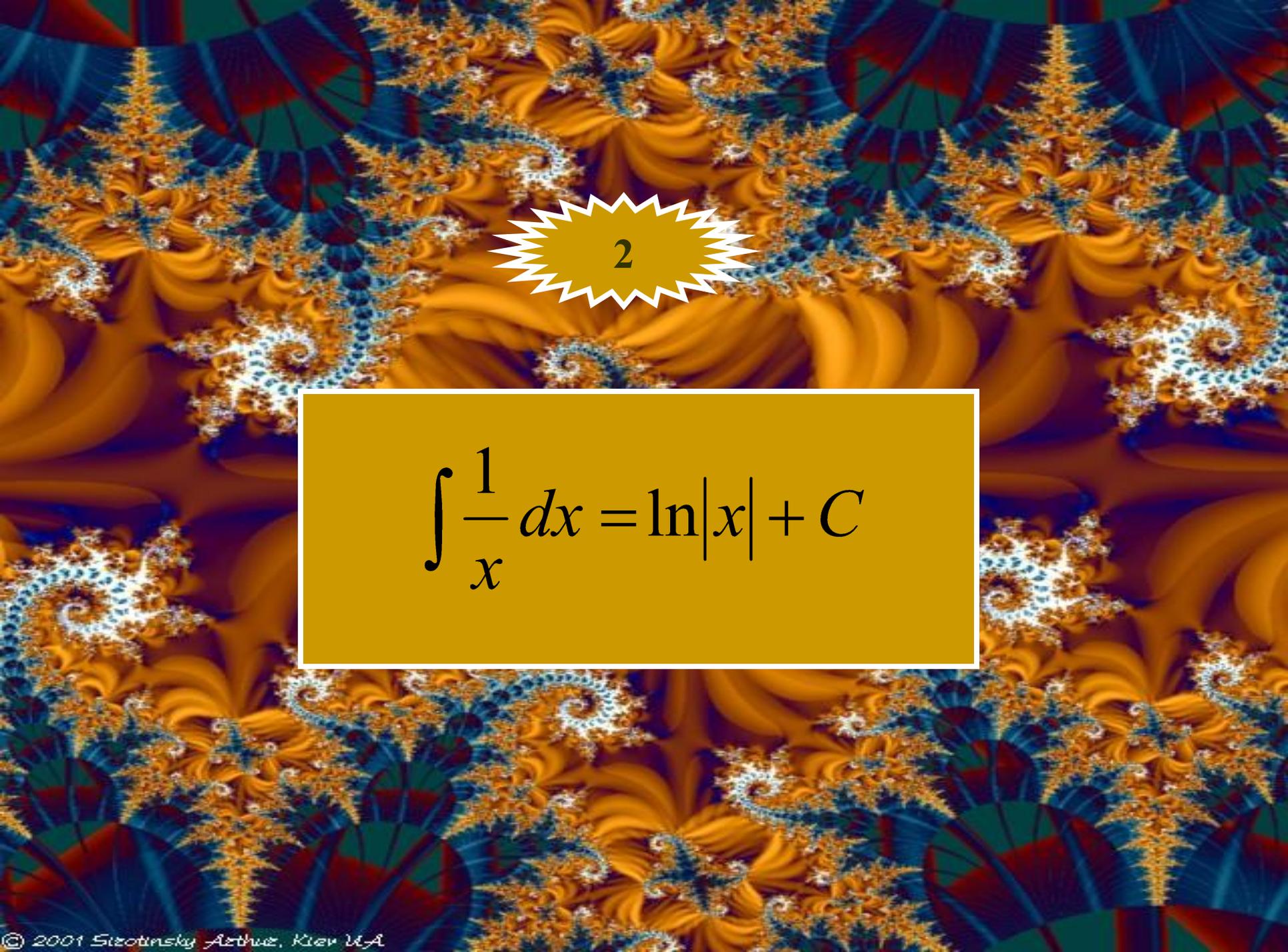# 11.3. ТАБЛИЦА ОСНОВНЫХ НЕОПРЕДЕЛЕННЫХ ИНТЕГРАЛОВ

1

$$\int x^n dx = \frac{x^{n+1}}{n+1} + C$$

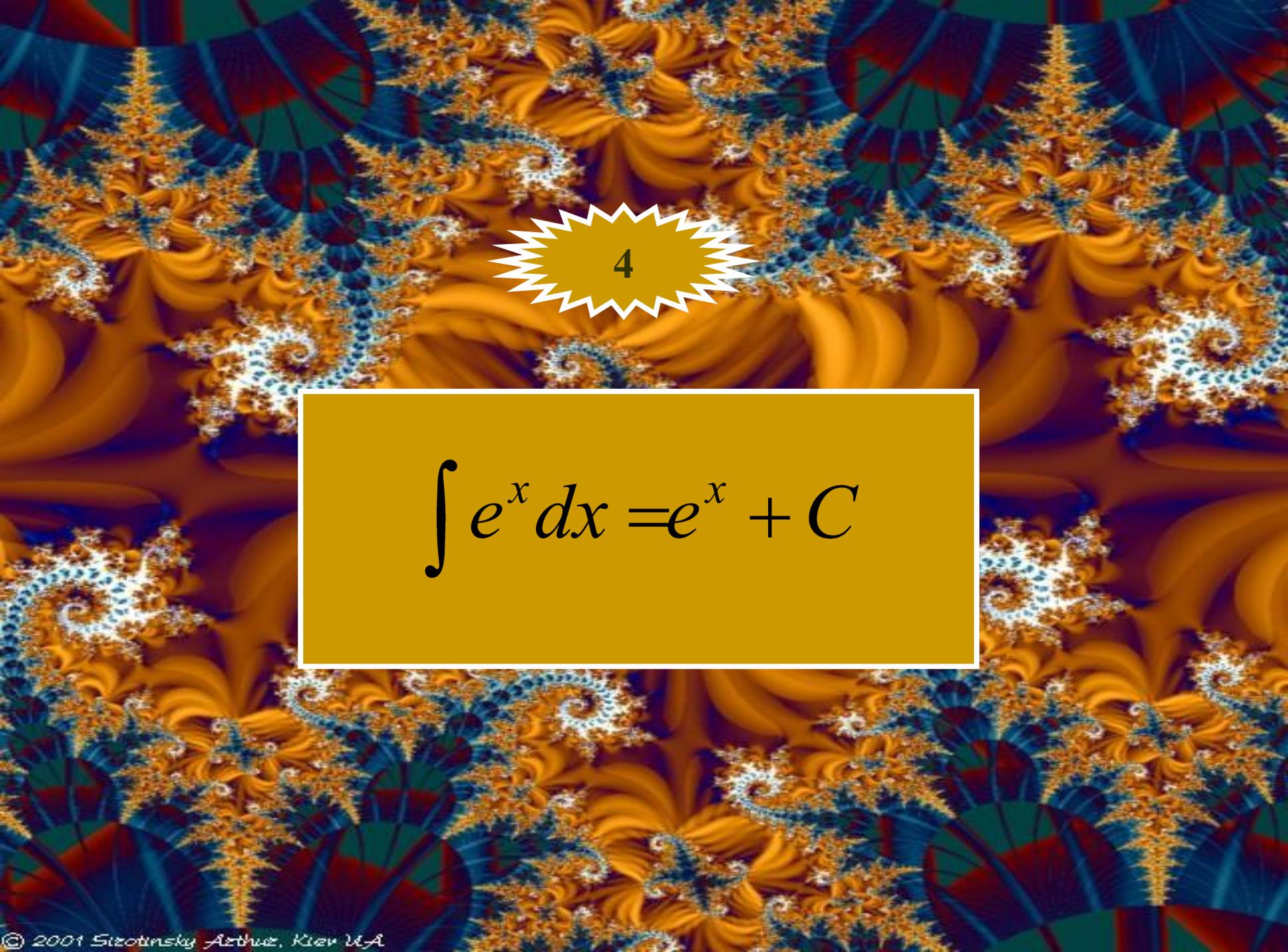$$n \neq -1$$

2

$$\int \frac{1}{x}\, dx = \ln|x| + C$$
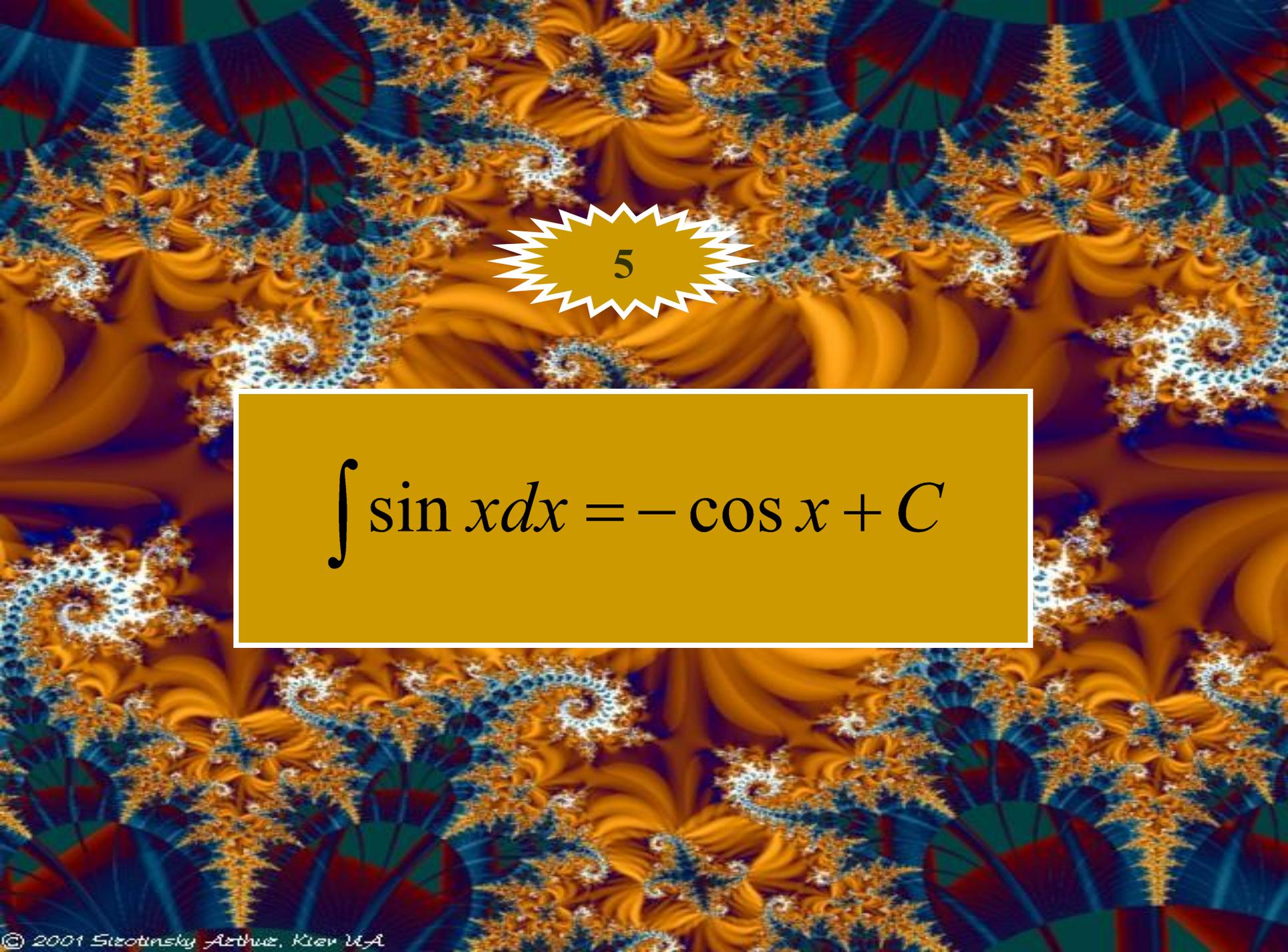
3

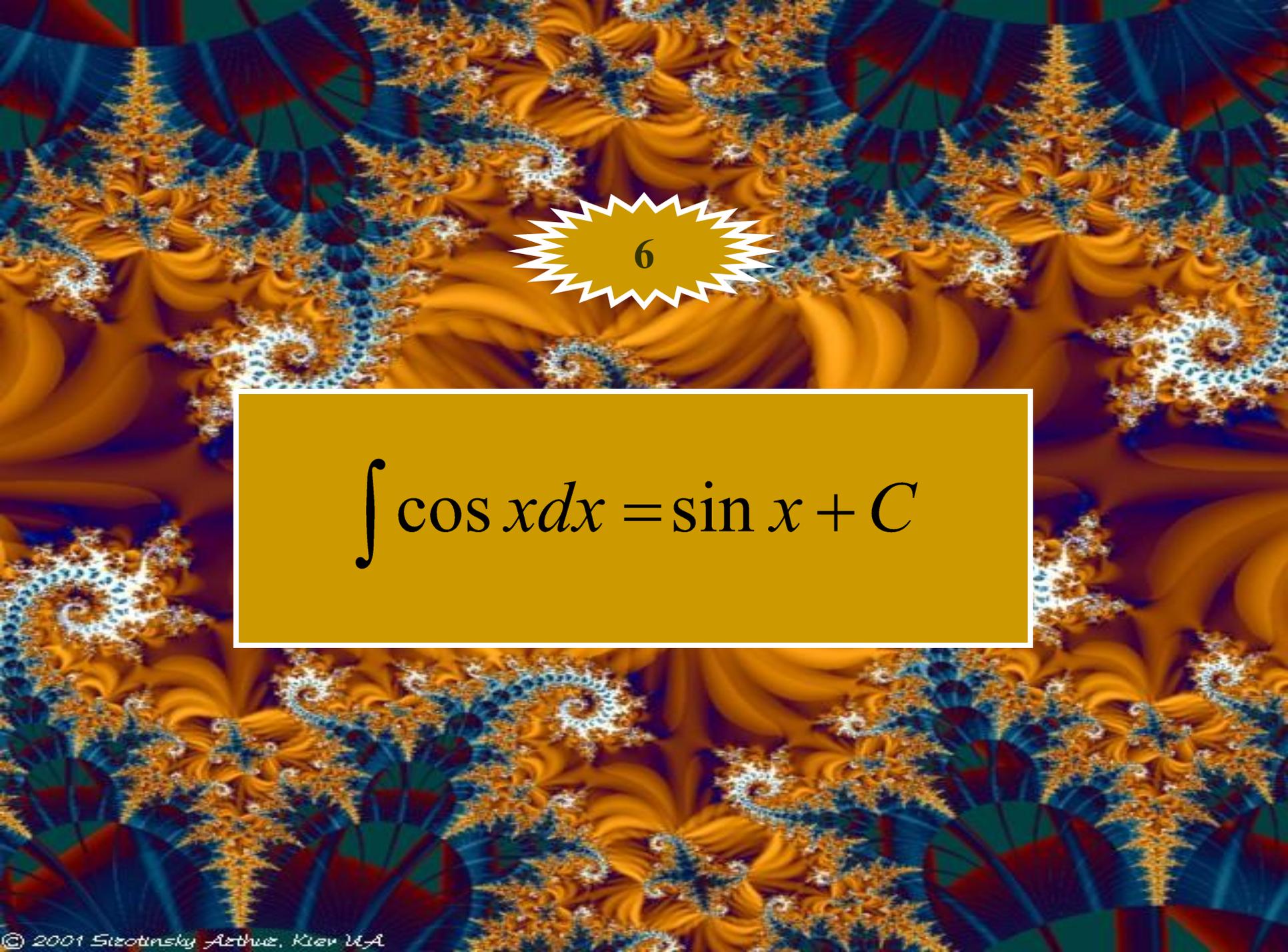$$\int a^x \, dx = \frac{a^x}{\ln a} + C$$

$$a > 0, \quad a \neq 1$$

4

$$\int e^x \, dx = e^x + C$$

$$\int \sin x \, dx = -\cos x + C$$

6

$$\int \cos x\, dx = \sin x + C$$

7

$$\int \frac{1}{\sqrt{a^2 - x^2}}\, dx = \arcsin \frac{x}{a} + C$$

$$a \neq 0$$

8

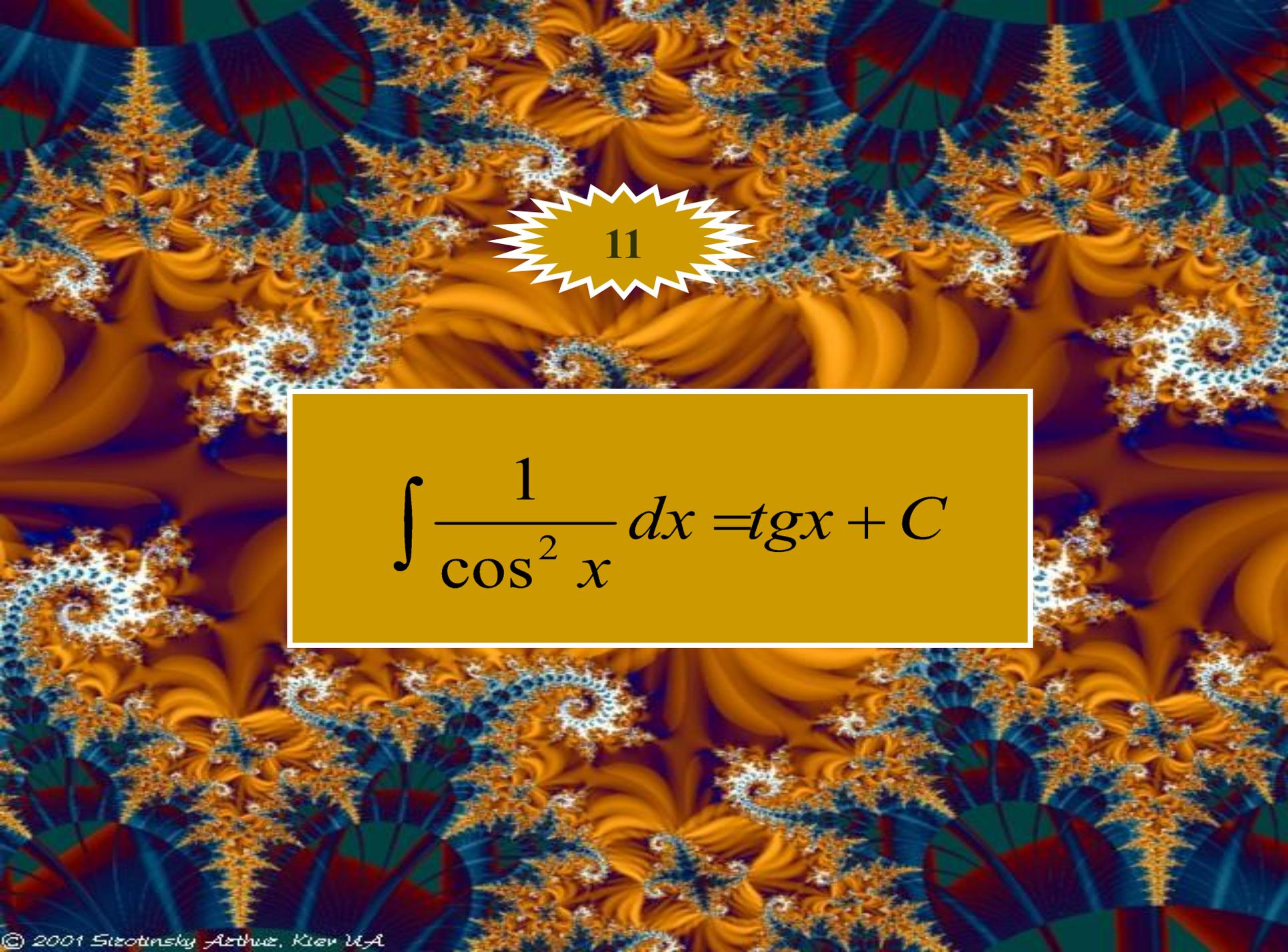$$\int \frac{1}{a^2 + x^2}\, dx = \frac{1}{a}\, arctg\, \frac{x}{a} + C$$

$$a \neq 0$$

9

$$\int \frac{1}{x^2 - a^2}\, dx = \frac{1}{2a} \ln\left|\frac{x - a}{x + a}\right| + C$$

$$a \neq 0$$

$$\int \frac{1}{\sqrt{x^2 + a}}\, dx = \ln\left| x + \sqrt{x^2 + a} \right| + C$$

$$a \neq 0$$

$$\int \frac{1}{\cos^2 x}\, dx = tgx + C$$

$$\int \frac{1}{\sin^2 x} dx = -ctgx + C$$