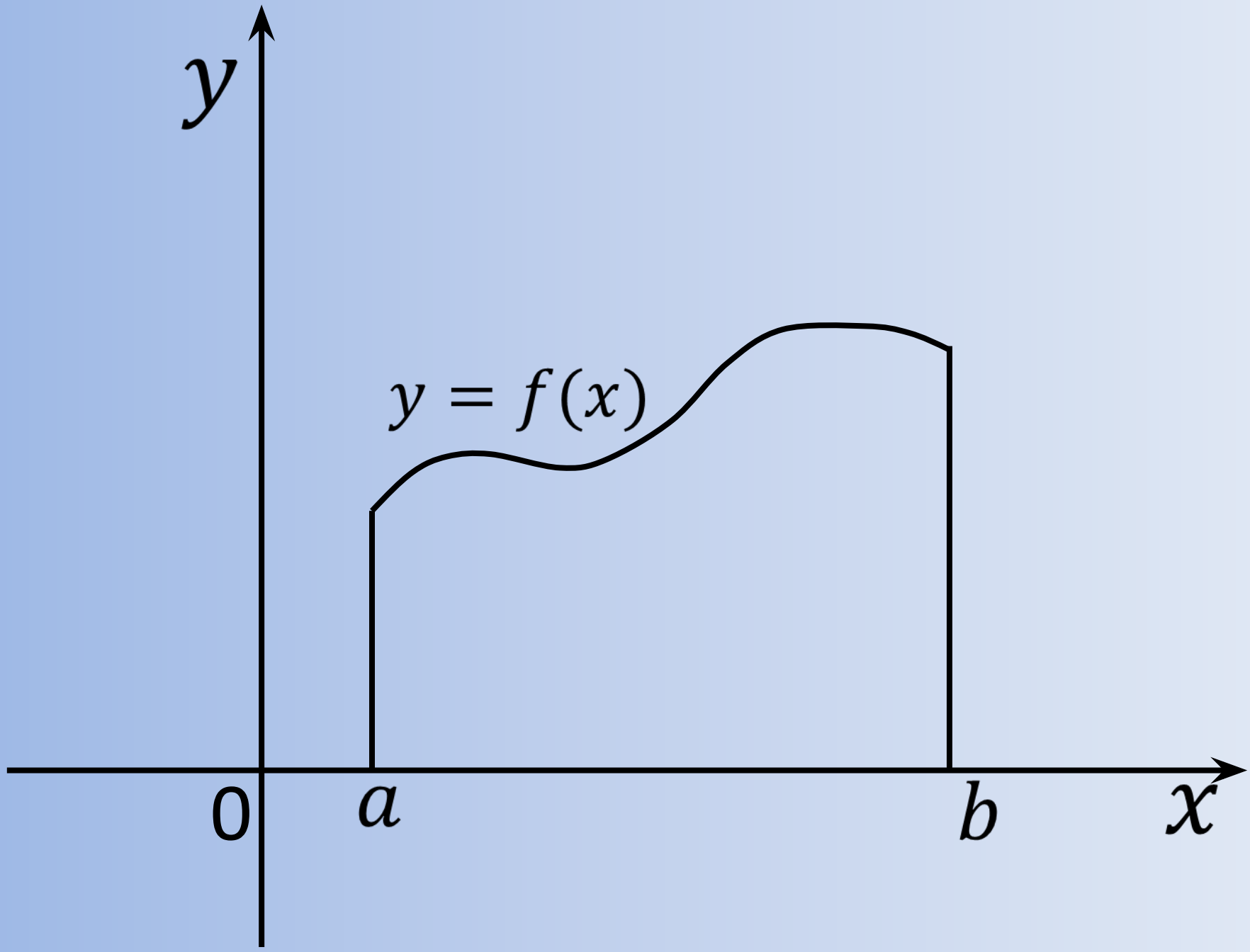
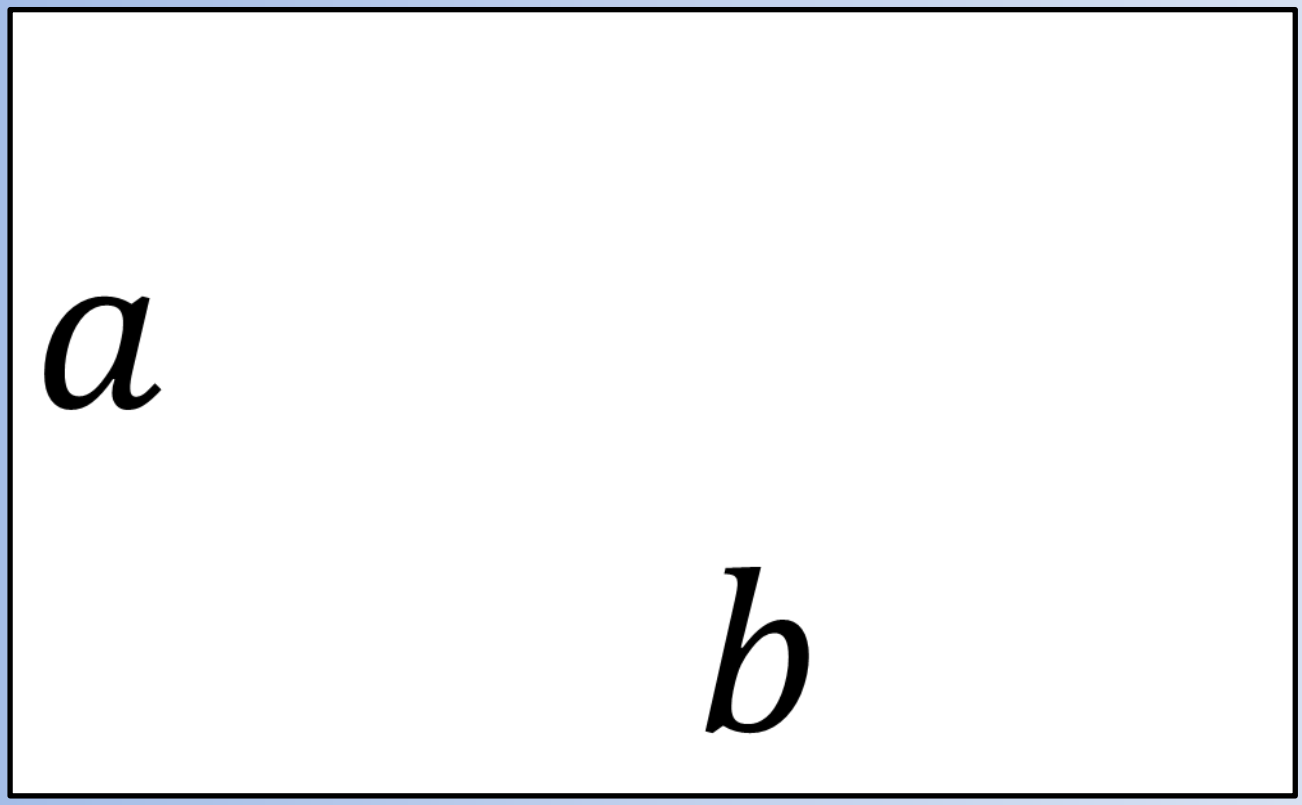
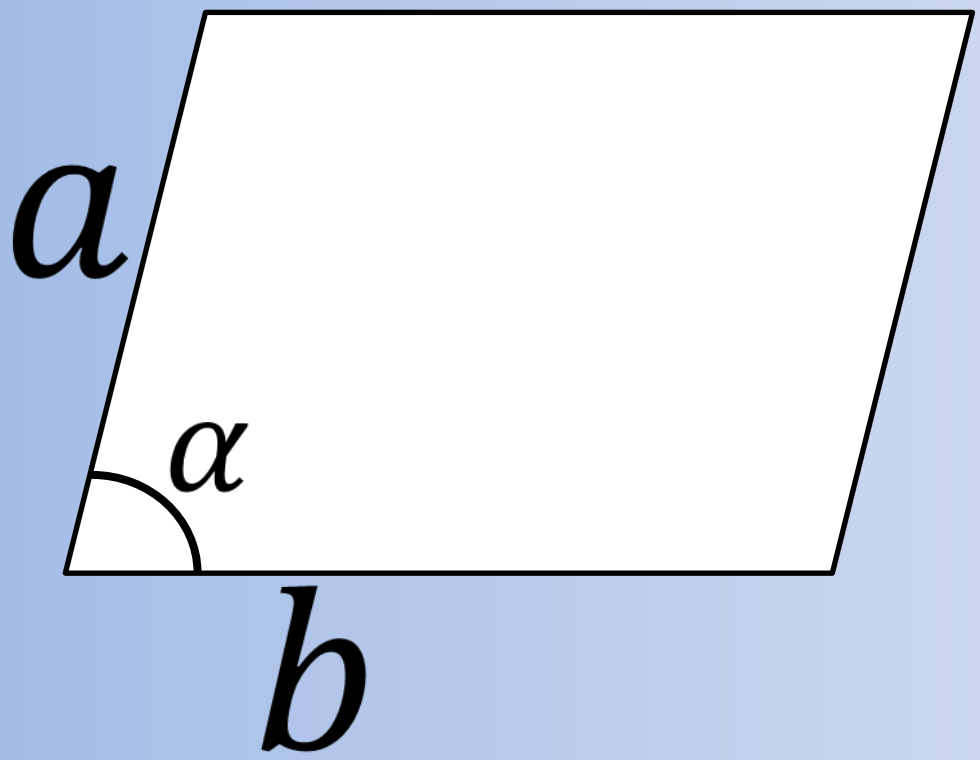

y
y = f(x)
0
a
b
x

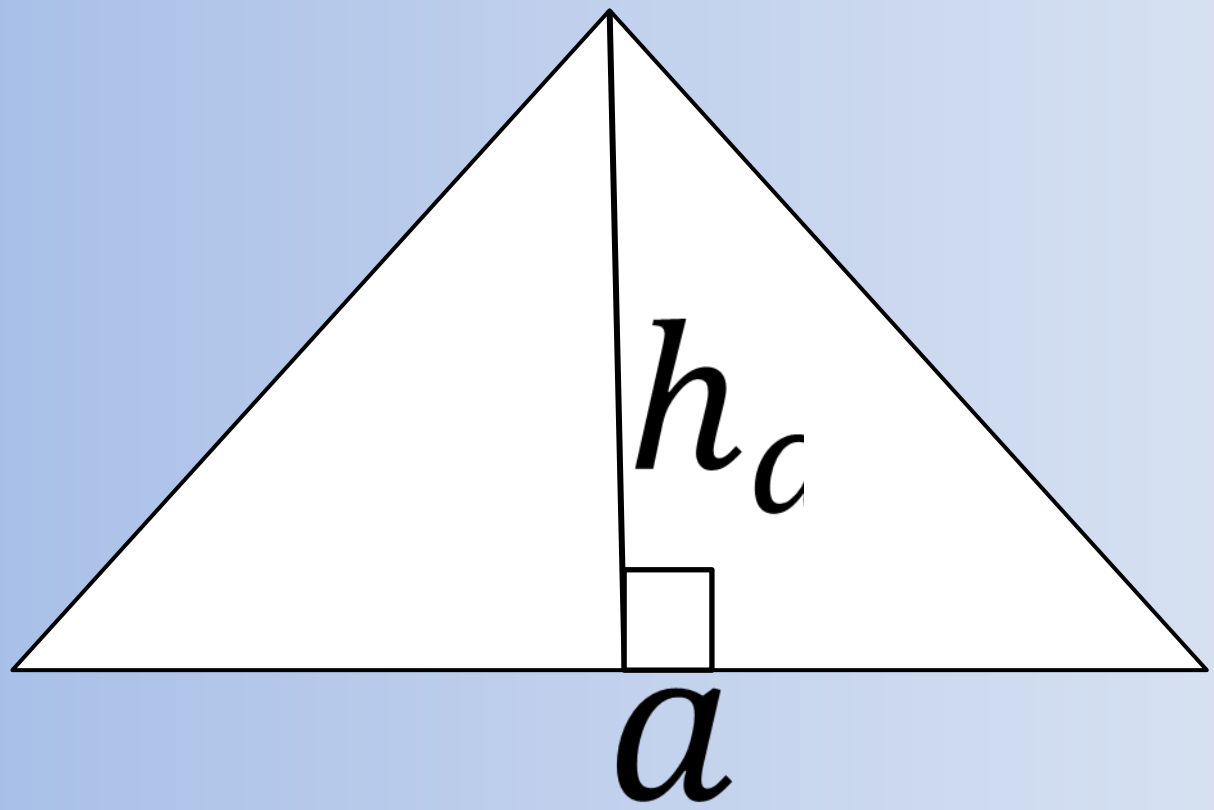
ПЛОЩАДИ МНОГОУГОЛЬНИКОВ



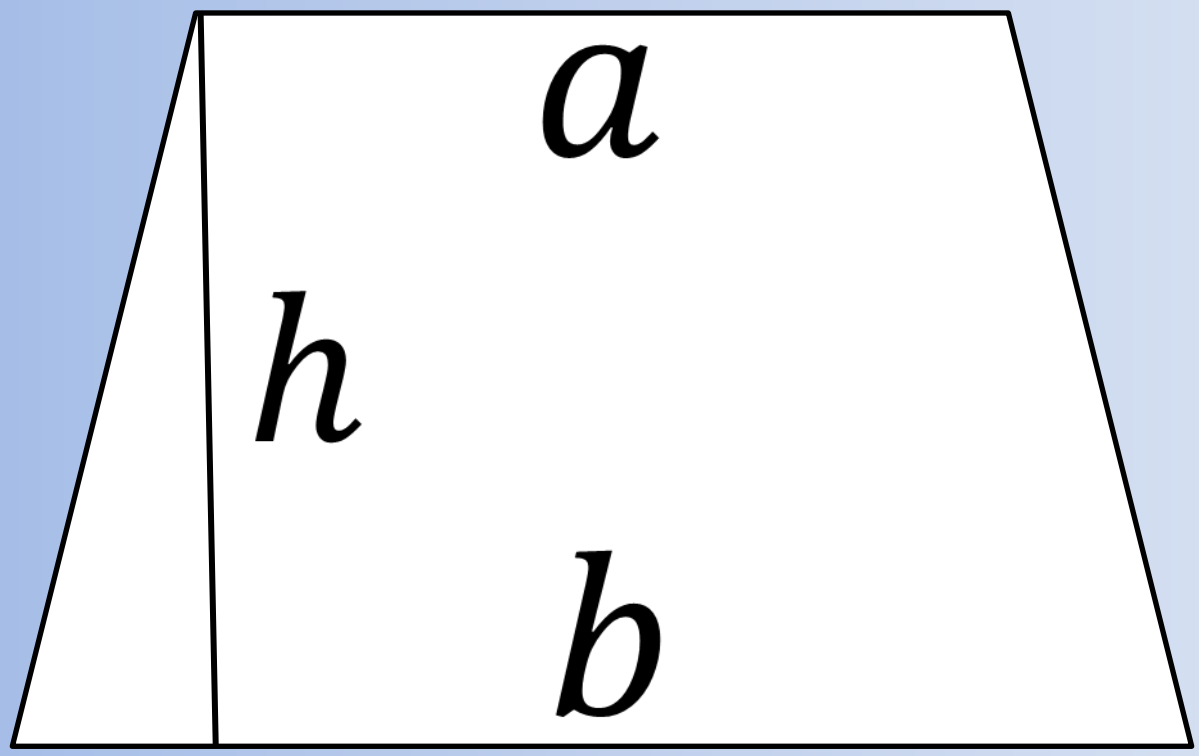
$$S = ab$$



$$S = ab \sin \alpha$$

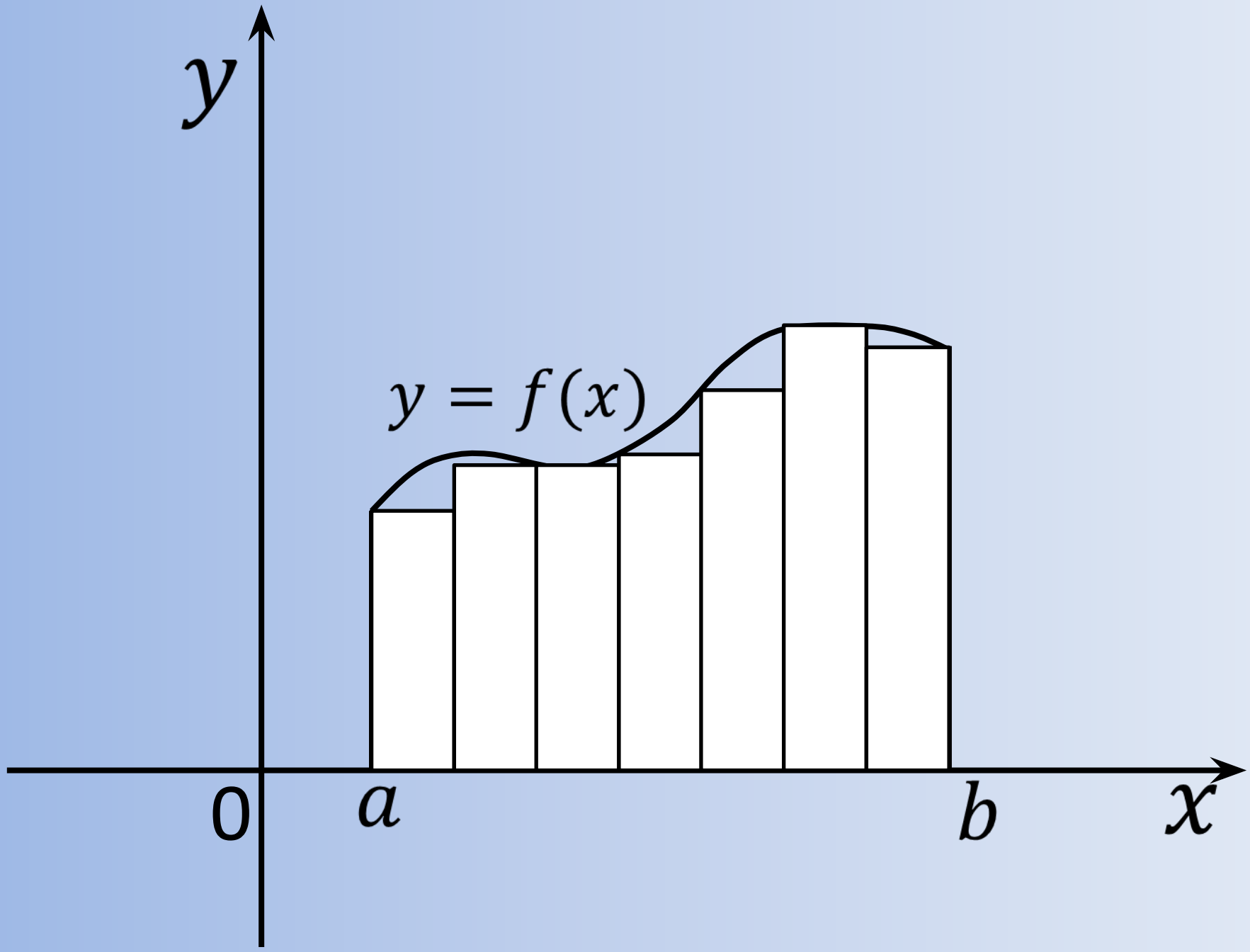


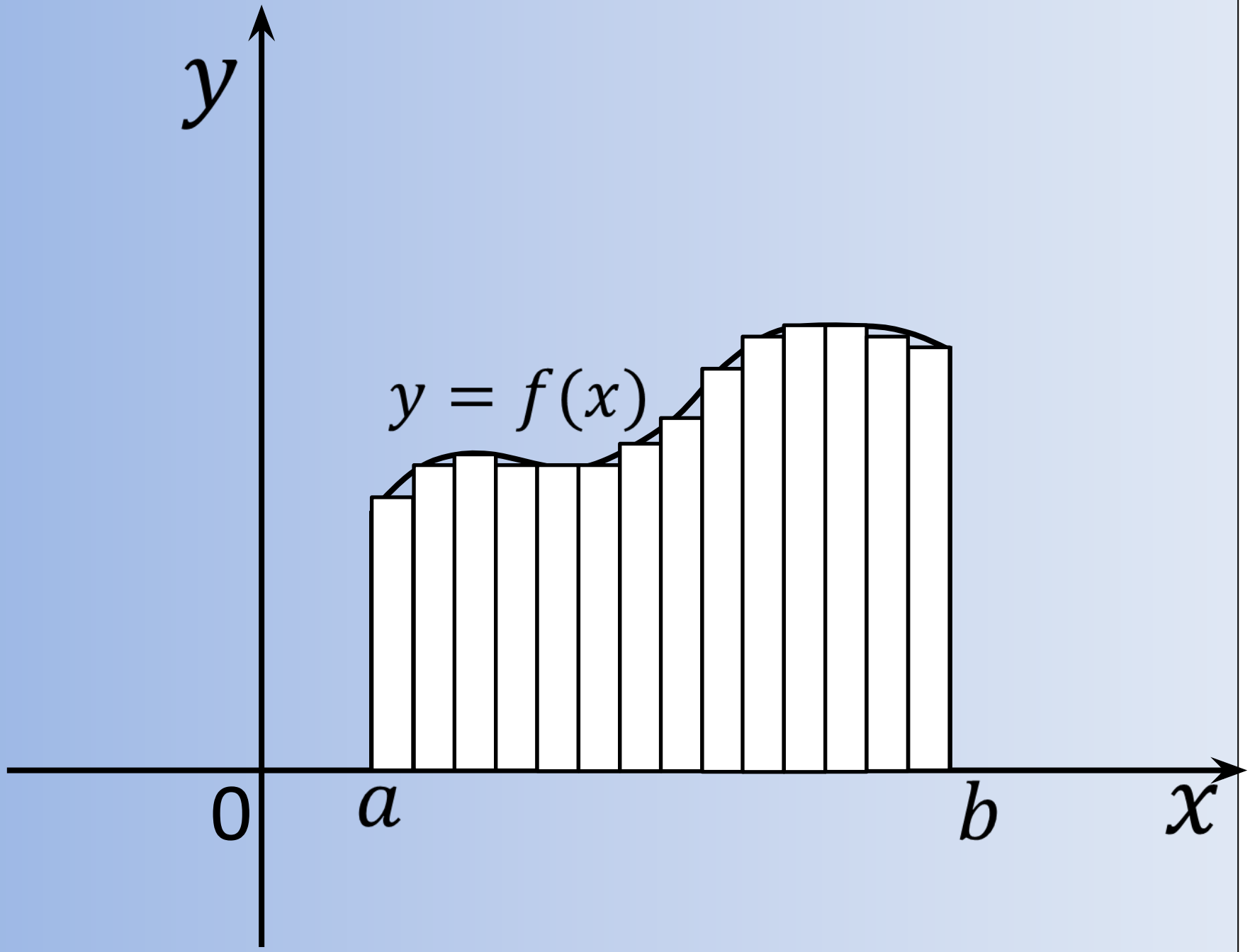
$$S = \frac{ah_a}{2}$$

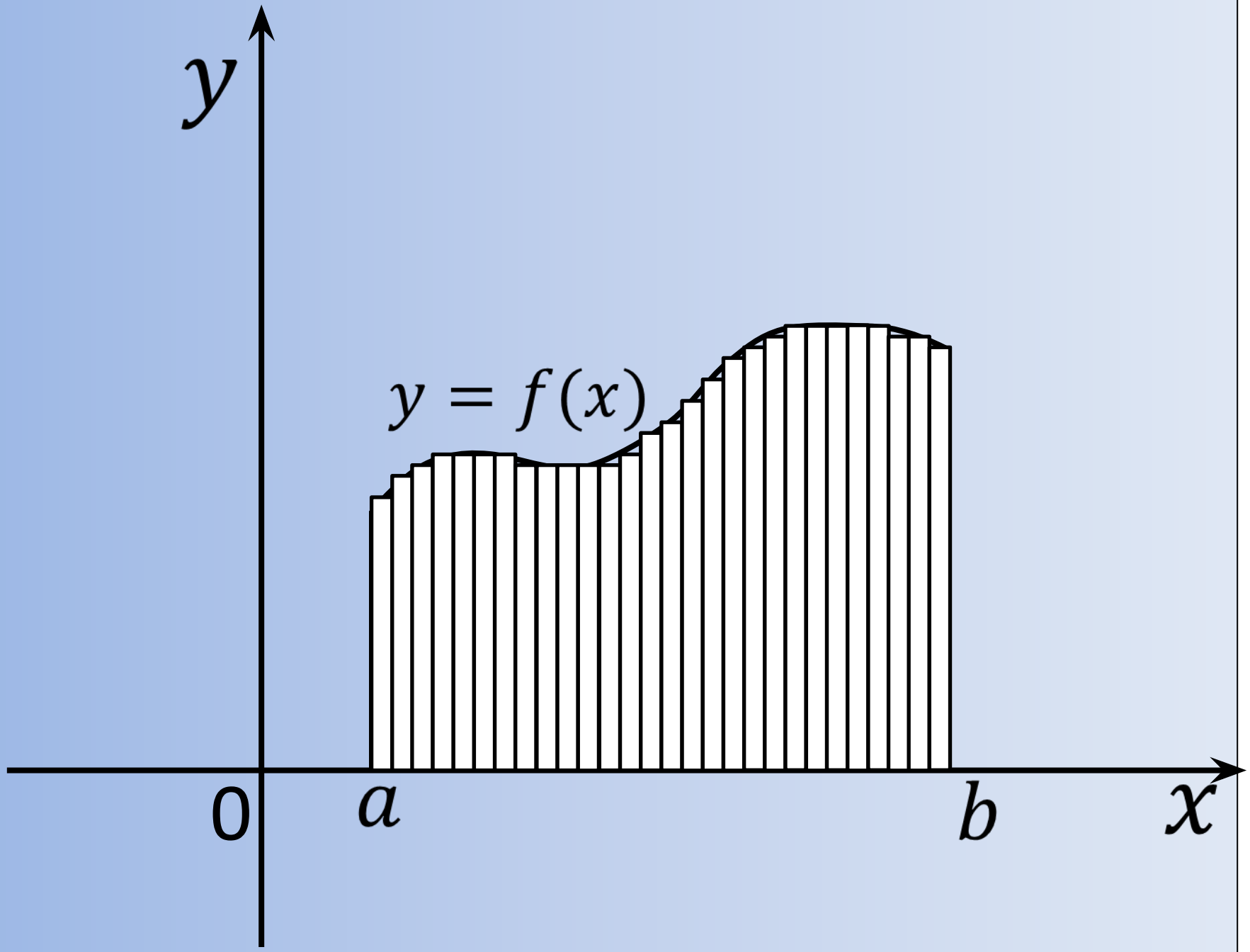


$$S = \frac{a + b}{2} h$$

ПЛОЩАДЬ КРИВОЛИНЕЙНОЙ ТРАПЕЦИИ


y
y = f(x)
0
a
b
x


y
y = f(x)
0
a
b
x


y
y = f(x)
0
a
b
x

- $S_k = f(\xi_k)\Delta x_k$ - площадь k-го прямоугольника

Площадь ступенчатой фигуры равна

$$\sum_{k=1}^{n} f(\xi_k)\Delta x_k = S$$

•

Площадь криволинейной трапеции равна

$$\lim_{n\to\infty}\sum_{k=1}^{n} f(\xi_k)\Delta x_k = \int_a^b f(x)dx$$

- **Формула Ньютона-Лейбница**

$$\int_a^b f(x)dx = F(b) - F(a)$$

$F(x)$ – одна из первообразных функции $f(x)$