

$$1634. \int \frac{\sqrt{x} - 2\sqrt[3]{x^2+1}}{\sqrt[4]{x}} dx.$$

$$1635. \int \frac{(1-x)^3}{x\sqrt[3]{x}} dx.$$

$$1636. \int \left(1 - \frac{1}{x^2}\right) \sqrt{x} \sqrt{x} dx.$$

$$1637. \int \frac{(\sqrt{2x} - \sqrt[3]{3x})^2}{x} dx.$$

$$1638. \int \frac{\sqrt{x^4 + x^{-4} + 2}}{x^3} dx. \quad 1639. \int \frac{x^2 dx}{1 + x^2}.$$

$$1640. \int \frac{x^2 dx}{1 - x^2}. \quad 1641. \int \frac{x^2 + 3}{x^2 - 1} dx.$$

$$1642. \int \frac{\sqrt{1+x^2} + \sqrt{1-x^2}}{\sqrt{1-x^4}} dx.$$

$$1643. \int \frac{\sqrt{x^2+1} - \sqrt{x^2-1}}{\sqrt{x^4-1}} dx.$$

$$1644. \int (2^x + 3^x)^2 dx.$$

$$1645. \int \frac{2^{x+1} - 5^{x-1}}{10^x} dx. \quad 1646. \int \frac{e^{2x} + 1}{e^x + 1} dx.$$

$$1647. \int (1 + \sin x + \cos x) dx.$$

$$1648. \int \sqrt{1 - \sin 2x} dx \quad (0 \leq x \leq \pi).$$

$$1649. \int \operatorname{ctg}^2 x dx. \quad 1650. \int \operatorname{tg}^2 x dx.$$

$$1651. \int (a \operatorname{sh} x + b \operatorname{ch} x) dx. \quad 1652. \int \operatorname{th}^2 x dx.$$

$$1653. \int \operatorname{cth}^2 x dx.$$

1654. Доказать, что если $\int f(x) dx = F(x) + C$, то

$$\int f(ax + b) dx = \frac{1}{a} F(ax + b) + C \quad (a \neq 0).$$

Найти интегралы:

$$1655. \int \frac{dx}{x+a}. \quad 1656. \int (2x-3)^{10} dx.$$

$$1657. \int \sqrt[3]{1-3x} dx.$$