

$$1701. \int \frac{dx}{\sin^3 x \sqrt{\operatorname{ctg} x}}.$$

$$1702. \int \frac{dx}{\sin^2 x + 2 \cos^2 x}. \quad 1703. \int \frac{dx}{\sin x}.$$

$$1704. \int \frac{dx}{\cos x}. \quad 1705. \int \frac{dx}{\operatorname{sh} x}. \quad 1706. \int \frac{dx}{\operatorname{ch} x}.$$

$$1707. \int \frac{\operatorname{sh} x \operatorname{ch} x}{\sqrt{\operatorname{sh}^4 x + \operatorname{ch}^4 x}} dx. \quad 1708. \int \frac{dx}{\operatorname{ch}^3 x \sqrt{\operatorname{th}^2 x}}.$$

$$1709. \int \frac{\operatorname{arctg} x}{1+x^2} dx.$$

$$1710. \int \frac{dx}{(\operatorname{arcsin} x)^2 \sqrt{1-x^2}}.$$

$$1711. \int \sqrt{\frac{\ln(x + \sqrt{1+x^2})}{1+x^2}} dx.$$

$$1712. \int \frac{x^2+1}{x^4+1} dx.$$

У к а з а н и е.  $\left(1 + \frac{1}{x^2}\right) dx = d\left(x - \frac{1}{x}\right).$

$$1713. \int \frac{x^2-1}{x^4+1} dx. \quad 1714. \int \frac{x^4 dx}{(x^6+1)^4}.$$

$$1715. \int \frac{x^{n/2} dx}{\sqrt{1+x^{n+2}}}.$$

$$1716. \int \frac{1}{1-x^2} \ln \frac{1+x}{1-x} dx.$$

$$1717. \int \frac{\cos x dx}{\sqrt{2+\cos 2x}}.$$

$$1718. \int \frac{\sin x \cos x}{\sin^4 x + \cos^4 x} dx. \quad 1719. \int \frac{2^x \cdot 3^x}{9^x - 4^x} dx.$$

$$1720. \int \frac{x dx}{\sqrt{1+x^2} + \sqrt{(1+x^2)^3}}.$$

Применяя метод разложения, вычислить интегралы:

$$1721. \int x^3 (2-3x^2)^2 dx. \quad 1721.1. \int x(1-x)^{10} dx.$$

$$1722. \int \frac{1+x}{1-x} dx. \quad 1723. \int \frac{x^3}{1+x} dx.$$