Zestaw zadań 12

Zadanie 12.1

Obliczyć całki prostych funkcji wymiernych:

$$\int \frac{x^2}{1-x} \; \mathrm{d}x \qquad (1a)$$

$$\int \frac{x^3+1}{x-1} \; \mathrm{d}x \qquad (1b)$$

$$\int \frac{\mathrm{d}x}{x^2+2x} \qquad (1c)$$

$$\int \frac{x+1}{x+2} \; \mathrm{d}x \qquad (1d)$$

$$\int \frac{-x^2+x-1}{x-1} \; \mathrm{d}x \qquad (1e)$$

$$\int \frac{x^2+x-1}{x+1} \; \mathrm{d}x \qquad (1f)$$

$$\int \frac{x}{2x+1} \; \mathrm{d}x \qquad (1g)$$

$$\int \frac{x^2}{x^3+1} \; \mathrm{d}x \qquad (1h)$$

$$\int \frac{x-1}{x-2} \; \mathrm{d}x \qquad (1i)$$

$$\int \frac{x}{x^2+1} \; \mathrm{d}x \qquad (1j)$$

$$\int \frac{2x+1}{2x} \; \mathrm{d}x \qquad (1k)$$

$$\int \frac{x+4}{x+3} \; \mathrm{d}x \qquad (1l)$$

$$\int \frac{x+2}{x(x+1)} \; \mathrm{d}x \qquad (1m)$$

$$\int \frac{x^4}{x^4+1} \; \mathrm{d}x \qquad (1n)$$

$$\int \frac{x}{2x-1} \; \mathrm{d}x \qquad (1o)$$

$$\int \frac{4x^2+1}{2x} \; \mathrm{d}x \qquad (1p)$$

$$\int \frac{x}{x^2+x+1} \; \mathrm{d}x \qquad (1q)$$

$$\int \frac{4x^2+1}{4x^2} \; \mathrm{d}x \qquad (1r)$$

$$\int \frac{x^2}{2x^2+1} \; \mathrm{d}x \qquad (1s)$$

$$\int \frac{x^2+2x+1}{x+2} \; \mathrm{d}x \qquad (1t)$$

$$\int \frac{x^3+x+1}{x^2+1} \; \mathrm{d}x \qquad (1u)$$

$$\int \frac{2x-1}{2x} \; \mathrm{d}x \qquad (1v)$$

$$\int \frac{x+1}{x^2+2x+2} \; \mathrm{d}x \qquad (1w)$$

$$\int \frac{x+2}{x+3} \; \mathrm{d}x \qquad (1x)$$