

URCITY INTEGRAL

$$1) \int_2^5 4x^4 dx$$

$$11) \int_0^{\frac{\pi}{4}} \frac{4}{\cos^2 x} dx$$

$$2) \int_{-3}^{-1} \frac{1}{x^3} dx$$

$$12) \int_{\frac{\pi}{6}}^{\frac{\pi}{4}} \frac{\cos 2x}{\sin^2 x} dx$$

$$3) \int_0^2 (3x^3 - 2x + 5) dx$$

$$13) \int_0^1 3e^x dx$$

$$4) \int_1^4 \left(-x + \frac{4}{x}\right) dx$$

$$14) \int_1^e \left(\frac{3}{x} + 3\right) dx$$

$$5) \int_8^{24} \sqrt[3]{x} dx$$

$$15) \int_e^{2e} \frac{2}{x} dx$$

$$6) \int_2^5 (a-1)(a+3) da$$

$$16) \int_1^4 (4^x + 2) dx$$

$$7) \int_1^2 \left(\frac{4-x^2}{x}\right)^2 dx$$

$$17) \int_1^2 3 \cdot 2^x dx$$

$$8) \int_0^{\frac{\pi}{4}} \frac{1 + \sin^2 x}{\cos^2 x} dx$$

$$18) \int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} \sin^2 \frac{x}{2} dx$$

$$9) \int_{\frac{\pi}{6}}^{\frac{\pi}{2}} \frac{\sin 2x}{\cos x} dx$$

$$19) \int_1^{16} \sqrt[4]{x} dx$$

$$10) \int_0^{\pi} \cos x dx$$

$$20) \int_1^4 \frac{-2}{x^2} dx$$