Stofnföll nokkurra falla

$$\int x^n dx = \frac{x^{n+1}}{n+1} + K \qquad \int \sin(x)\,dx = -\cos(x) + K \qquad \int \cos(x)\,dx = \sin(x) + K$$

$$\int (1+\tan^2(x))\,dx = \tan(x) + K \qquad \int (1+\cot^2(x))\,dx = -\cot(x) + K \qquad \int \sin^2(x)\,dx = \frac{x}{2} - \frac{\sin(2x)}{4} + K$$

$$\int \tan^2(x)\,dx = \tan(x) - x + K \qquad \int \cot^2(x)\,dx = -\cot(x) - x + K \qquad \int \cos^2(x)\,dx = \frac{x}{2} + \frac{\sin(2x)}{4} + K$$

$$\int e^x dx = e^x + K \qquad \int a^x dx = \frac{a^x}{\ln(a)} + K \qquad \int \frac{1}{x} dx = \ln|x| + K$$

$$\int \frac{1}{1+x^2} dx = \arctan(x) + K \qquad \int \frac{1}{\sqrt{1-x^2}} dx = \arcsin(x) + K$$

Heildunarreglur

$$\int f(x)dx = F(x) + K, \qquad F'(x) = f(x) \qquad \int_a^b f(x)dx = \left[F(x)\right]_a^b = F(b) - F(a)$$

$$\int k \cdot f(x)\,dx = k \int f(x)\,dx \qquad \int_a^b k \cdot f(x)\,dx = k \int_a^b f(x)\,dx$$

$$\int (f(x)+g(x))\,dx = \int f(x)\,dx + \int g(x)\,dx \qquad \int_a^a f(x)\,dx = 0$$

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

$$\int_a^b f(x)\,dx = -\int_b^a f(x)\,dx \qquad \int_a^b f(x)\,dx = \int_a^c f(x)\,dx + \int_c^b f(x)\,dx$$

Flatarmál - Rúmmál

$$A = \int_a^b f(x)\,dx = \left[F(x)\right]_a^b \qquad A = \int_a^b (f(x) - g(x))\,dx = \int_a^b (EF - NF)\,dx$$

$$V = \int_a^b \pi (f(x))^2 dx = \int_a^b \pi \cdot R^2\,dx \qquad V = \int_a^b \pi ((f(x))^2 - (g(x))^2)\,dx = \int_a^b \pi \cdot (R^2 - r^2)\,dx$$