



## ■ Αρχική Συνάρτηση

Συνάρτηση	Παράγουσα	Ορισμένο ολοκλήρωμα
$c$	$cx$	$\int_a^{\beta} c dx = [cx]_a^{\beta} = c(\beta - a)$
$x$	$\frac{x^2}{2}$	$\int_a^{\beta} x dx = \left[\frac{x^2}{2}\right]_a^{\beta} = \frac{\beta^2}{2} - \frac{a^2}{2}$
$x^{\nu}$	$\frac{x^{\nu+1}}{\nu+1}$	$\int_a^{\beta} x^{\nu} dx = \left[\frac{x^{\nu+1}}{\nu+1}\right]_a^{\beta} = \frac{\beta^{\nu+1}}{\nu+1} - \frac{a^{\nu+1}}{\nu+1}$
$\frac{1}{2\sqrt{x}}$	$\sqrt{x}$	$\int_a^{\beta} \frac{1}{2\sqrt{x}} dx = [\sqrt{x}]_a^{\beta} = \sqrt{\beta} - \sqrt{a}$
$\sqrt[\mu]{x^{\mu}}$	$\frac{x^{\frac{\mu}{\nu}+1}}{\frac{\mu}{\nu}+1}$	$\int_a^{\beta} \sqrt[\nu]{x^{\mu}} dx = \left[\frac{x^{\frac{\mu}{\nu}+1}}{\frac{\mu}{\nu}+1}\right]_a^{\beta} = \frac{\beta^{\frac{\mu}{\nu}+1}}{\frac{\mu}{\nu}+1} - \frac{a^{\frac{\mu}{\nu}+1}}{\frac{\mu}{\nu}+1}$
$\frac{1}{x^2}$	$-\frac{1}{x}$	$\int_a^{\beta} \frac{1}{x^2} dx = \left[-\frac{1}{x}\right]_a^{\beta} = -\frac{1}{\beta} + \frac{1}{a}$
$\eta\mu x$	$-\sigma\upsilon\nu x$	$\int_a^{\beta} \eta\mu x dx = [-\sigma\upsilon\nu x]_a^{\beta} = -\sigma\upsilon\nu\beta + \sigma\upsilon\nu a$
$\sigma\upsilon\nu x$	$\eta\mu x$	$\int_a^{\beta} \sigma\upsilon\nu x dx = [\eta\mu x]_a^{\beta} = \eta\mu\beta - \eta\mu a$
$\frac{1}{\sigma\upsilon\nu^2 x}$	$\epsilon\phi x$	$\int_a^{\beta} \frac{1}{\sigma\upsilon\nu^2 x} dx = [\epsilon\phi x]_a^{\beta} = \epsilon\phi\beta - \epsilon\phi a$
$\frac{1}{\eta\mu^2 x}$	$\sigma\phi x$	$\int_a^{\beta} \frac{1}{\eta\mu^2 x} dx = [-\sigma\phi x]_a^{\beta} = -\sigma\phi\beta + \sigma\phi a$
$e^x$	$e^x$	$\int_a^{\beta} e^x dx = [e^x]_a^{\beta} = e^{\beta} - e^a$
$a^x$	$\frac{a^x}{\ln a}$	$\int_a^{\beta} \mu^x dx = \left[\frac{\mu^x}{\ln \mu}\right]_a^{\beta} = \frac{\mu^{\beta}}{\ln \mu} - \frac{\mu^a}{\ln \mu}$
$\frac{1}{x}$	$\ln  x $	$\int_a^{\beta} \frac{1}{x} dx = [\ln  x ]_a^{\beta} = \ln  \beta  - \ln  a $