Power of x.

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| [integral]xn dx = xn+1 (n+1)-1 + C  (n http://math2.org/math/not-equ.gif -1)  [Proof](http://math2.org/math/integrals/more/x%5En.htm) | [integral] x-1 dx = ln|x| + C |

Exponential / Logarithmic

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| [integral] ex dx = ex + C  [Proof](http://math2.org/math/integrals/more/e%5Ex.htm) | [integral] bx dx = bx / ln(b) + C  [Proof](http://math2.org/math/integrals/more/b%5Ex.htm), [Tip!](http://math2.org/math/integrals/more/b%5Ex.htm#tip) |
| [integral]ln(x) *dx* = x ln(x) - x + C  [Proof](http://math2.org/math/integrals/more/ln.htm) |  |

Trigonometric

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| [integral] sin x dx = -cos x + C  [Proof](http://math2.org/math/integrals/more/restrig.htm) | [integral] csc x dx = - ln|csc x + cot x| + C  [Proof](http://math2.org/math/integrals/more/csc.htm) |
| [integral] cos x dx = sin x + C  [Proof](http://math2.org/math/integrals/more/restrig.htm) | [integral] sec x dx = ln|sec x + tan x| + C  [Proof](http://math2.org/math/integrals/more/sec.htm) |
| [integral] tan x dx = -ln|cos x| + C  [Proof](http://math2.org/math/integrals/more/tan.htm) | [integral] cot x dx = ln|sin x| + C  [Proof](http://math2.org/math/integrals/more/cot.htm) |

Trigonometric Result

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| [integral] cos x dx = sin x + C  [Proof](http://math2.org/math/integrals/more/restrig.htm) | [integral] csc x cot x dx = - csc x + C  [Proof](http://math2.org/math/integrals/more/restrig.htm) |
| [integral] sin x dx = -cos x + C  [Proof](http://math2.org/math/integrals/more/restrig.htm) | [integral] sec x tan x dx = sec x + C  [Proof](http://math2.org/math/integrals/more/restrig.htm) |
| [integral] sec2 x dx = tan x + C  [Proof](http://math2.org/math/integrals/more/restrig.htm) | [integral]csc2 x dx = - cot x + C  [Proof](http://math2.org/math/integrals/more/restrig.htm) |

Inverse Trigonometric

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| [integral] arcsin x dx = x arcsin x + [sqrt](1-x2) + C |
| [integral] arccsc x dx = x arccos x - [sqrt](1-x2) + C |
| [integral] arctan x dx = x arctan x - (1/2) ln(1+x2) + C |

Inverse Trigonometric Result 

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| |  |  |  |  | | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | [integral] | dx  [sqrt](1 - x2) | = arcsin x + C | | | |  |  |  | | --- | --- | --- | | [integral] | *dx*  x sqrt(x2 - 1) | = arcsec|x| + C | | | |  |  |  | | --- | --- | --- | | [integral] | *dx*  1 + x2 | = arctan x + C | | | |  | | --- | | **Useful Identities**  arccos x = pi/2 - arcsin x   (-1 <= x <= 1)  arccsc x = pi/2 - arcsec x   (|x| >= 1)  arccot x = pi/2 - arctan x   (for all x) | |

Hyperbolic

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| [integral] sinh x dx = cosh x + C  [Proof](http://math2.org/math/integrals/more/sinh.htm) | [integral] csch x dx = ln |tanh(x/2)| + C  [Proof](http://math2.org/math/integrals/more/csch.htm) |
| [integral] cosh x dx = sinh x + C  [Proof](http://math2.org/math/integrals/more/cosh.htm) | [integral] sech x dx = arctan (sinh x) + C |
| [integral] tanh x dx = ln (cosh x) + C  [Proof](http://math2.org/math/integrals/more/tanh.htm) | [integral] coth x dx = ln |sinh x| + C  [Proof](http://math2.org/math/integrals/more/coth.htm) |