

Find the volume of the solid formed when the region bounded above by sin (x) and below by the x-axis, starting at the origin, is revolved about the y-axis.



$\int x \ln(x) dx$



$\int \ln(x) dx$



 $\int x^2 \cos(x) dx$



 $\int \sin^{-1}(x) dx$

That means arcsinx



 $\int e^x \sin(x) dx$



$\int x^2 \tan^{-1}(x) dx$

 $\int xe^x dx$

$\int 4x \sec^2\left(2x\right) dx$



 $\int \sec^{-1}\left(\sqrt{x}\right) dx$

Also referred to as Arcsec

$\int e^{-2x} \sin(2x) dx$

Solve the following differential equation if $y = \frac{1}{2}$ when t=0

and
$$y = \frac{2}{3}$$
 when $t = 1$ $\frac{dy}{dt} = ky(1-y)$

K is a constant of proportionality

 $\int \frac{x^3 dx}{\sqrt{1+x^2}}$



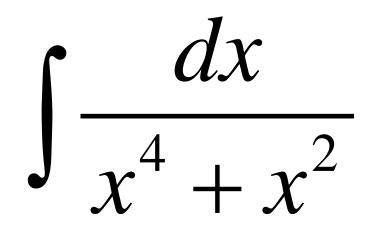
 $\int \frac{dx}{x^2 + 7x + 10}$



 $\int \frac{dx}{\left(x^2 - 4\right)\left(x + 2\right)}$



 $\int \frac{(x+3)dx}{(x+2)(x^2+1)}$





$\int \sin^5(x) \cos(x) dx$



 $\int \tan^4(x) dx$



$\int \sin^2(x) dx$



 $\int \sec^6(x) dx$

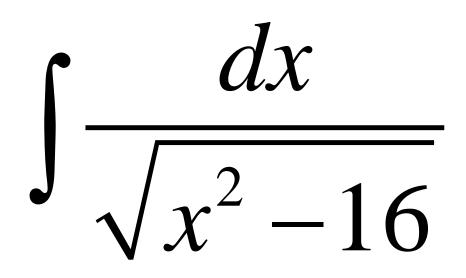


$\int \sec^3(x) \tan(x) dx$



 $\int \sqrt{1-x^2} \, dx$



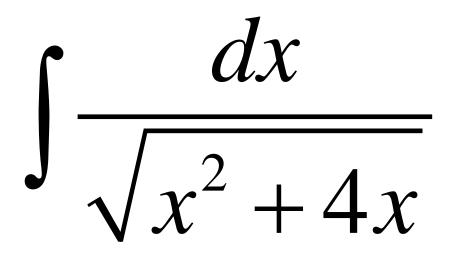




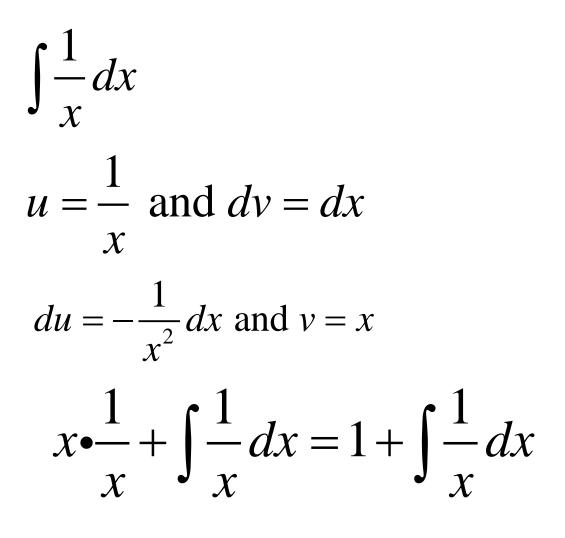
 $\int_{0}^{4} \frac{dx}{\sqrt{x^2 + 16}}$



 $\int \sqrt{4 + x^2} \, dx$



 $\int_{-1}^{1} \left(\frac{1}{9 - x^2} \right) dx$



So, 0=1