

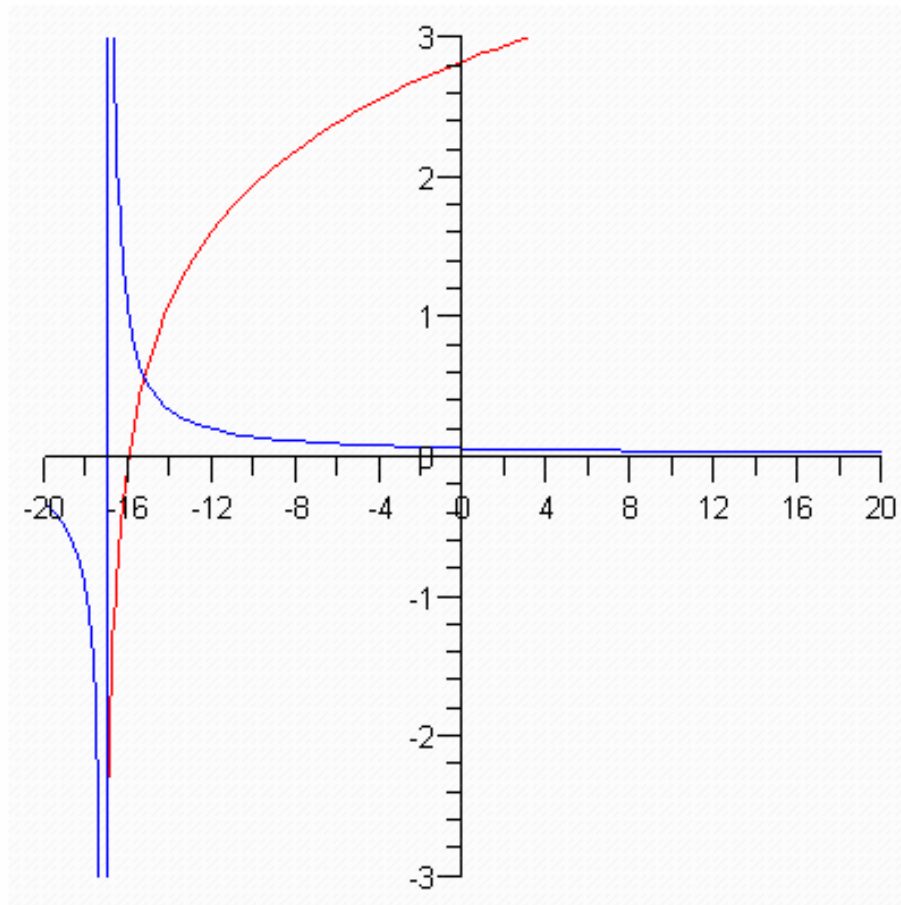
Definite and Indefinite Integrals

> $\int \frac{1}{x + 17} dx$

$\ln(x + 17)$

> red line → **integral** ; blue line → **integrand**

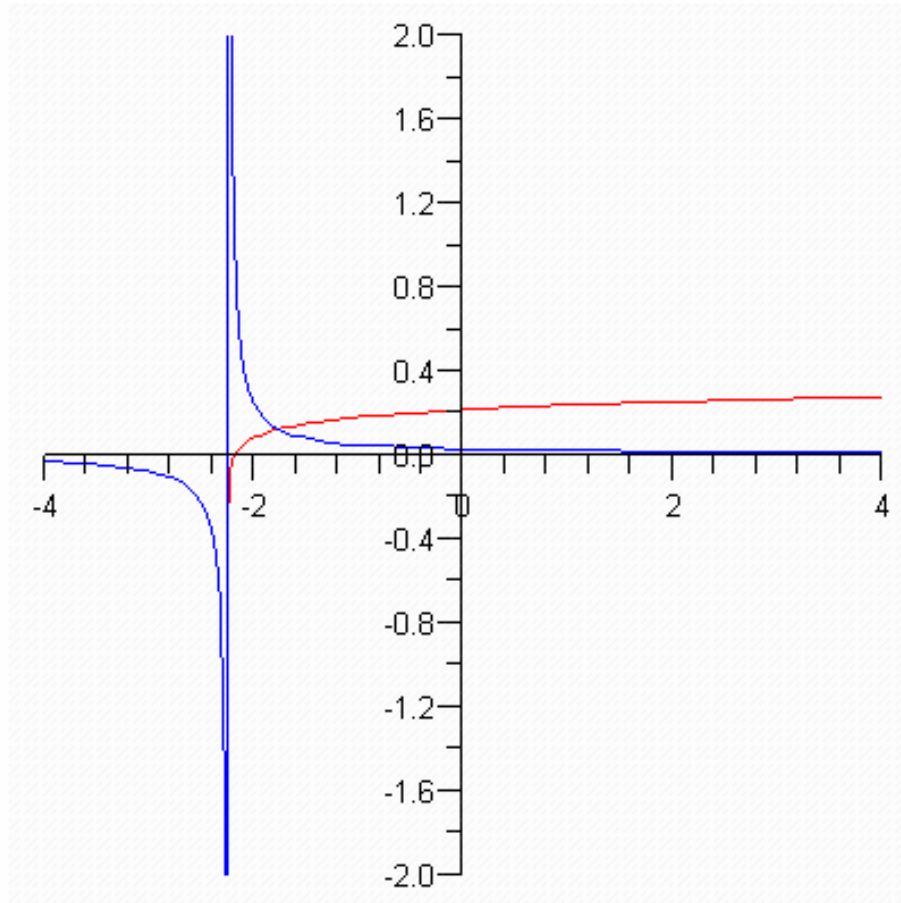
> `smartplot (int (1 / (x + 17) , x))`



> $\int \frac{1}{17x + 38} dx$

$$\frac{1}{17} \ln(17x + 38)$$

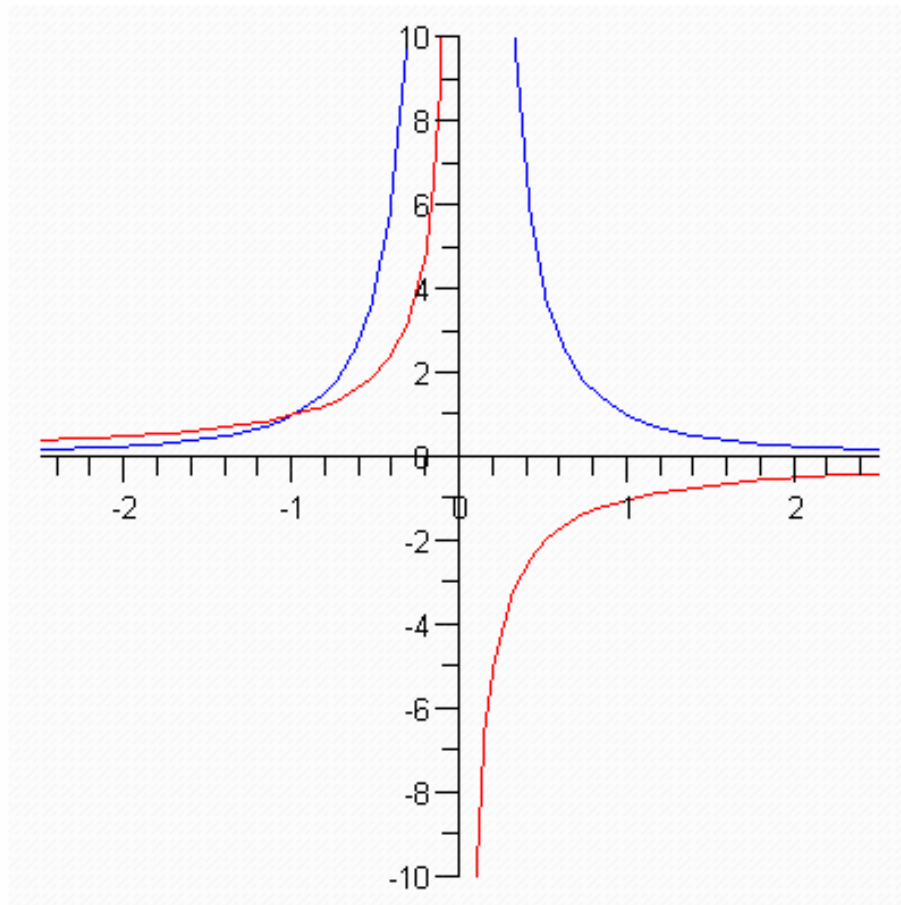
> *smartplot* ((2))



> $\int \frac{1}{x^2} dx$

$$-\frac{1}{x}$$

> *smartplot* ((3))

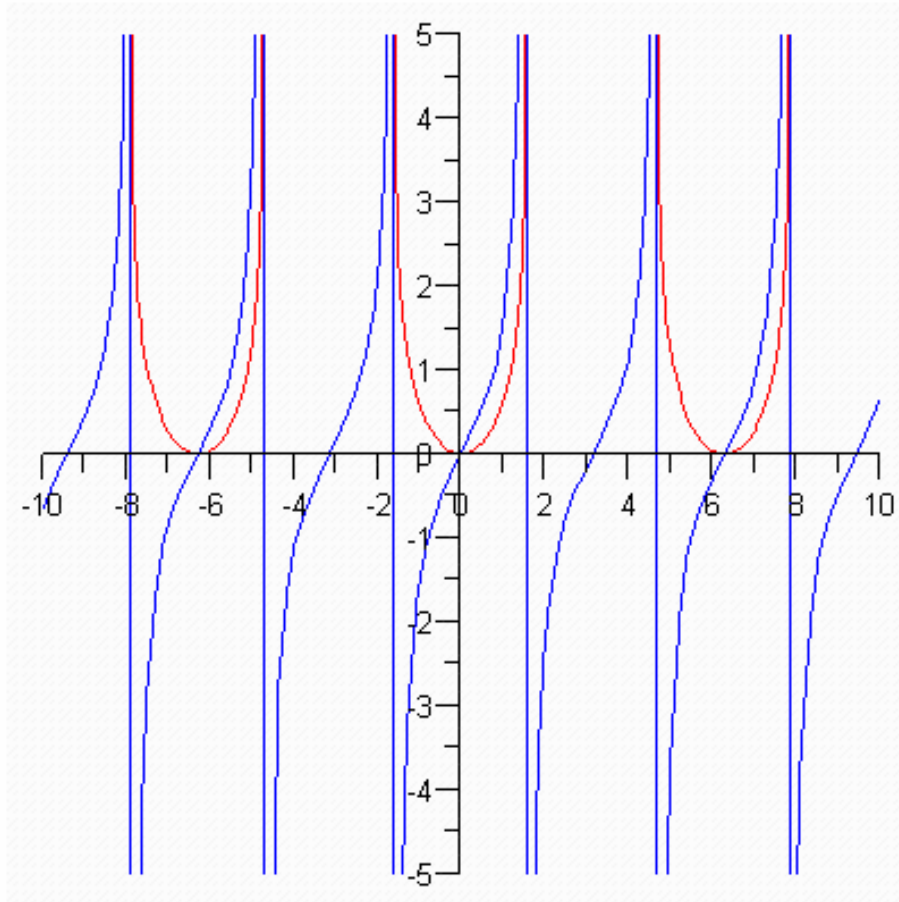


>

> $\int \tan(x) \, dx$

$-\ln(\cos(x))$

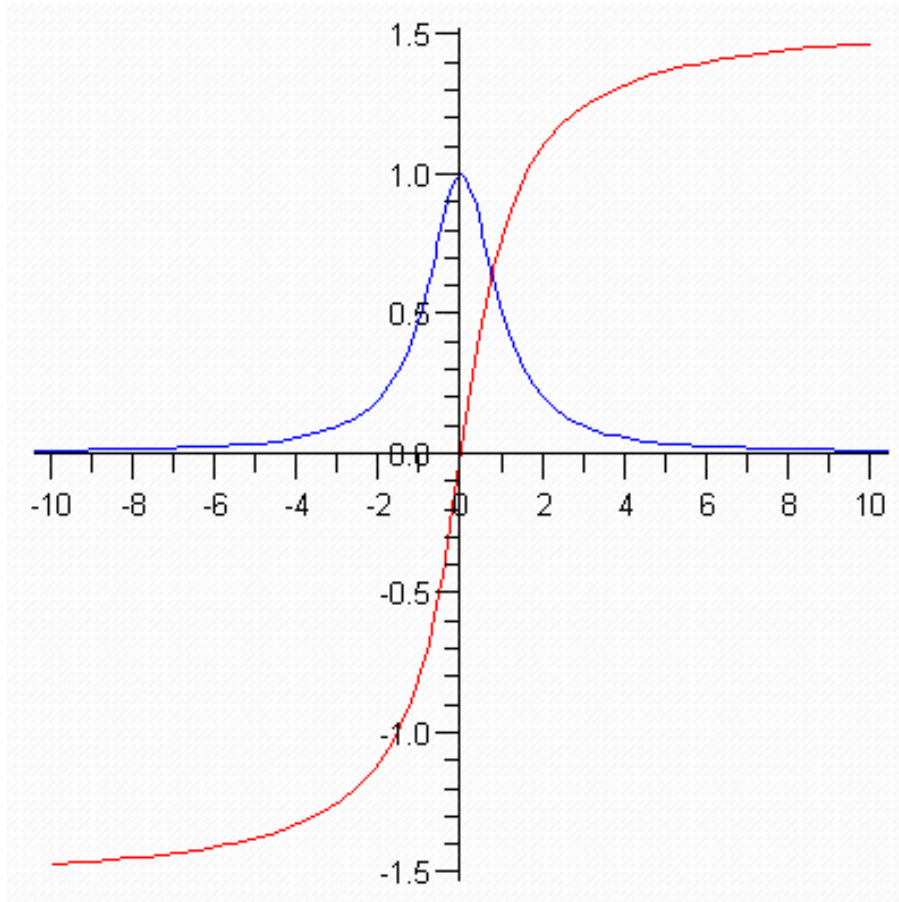
> *smartplot* ((4))



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

arctan(x)

> *smartplot* ((5))



> $\int_2^4 \frac{1}{x^2 + 1} dx$

— arctan(2) + arctan(4)

> evalf [5] ((6))

0
.2187

>

> *right click the mouse* → *Approximate* → *choose any digits you want*