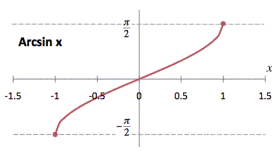
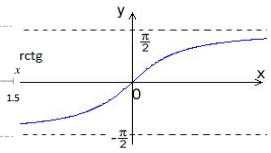
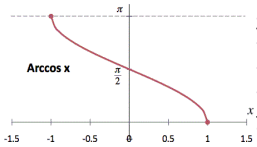
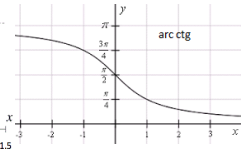




X=(-1,1) Y=(Pi/2,-Pi/2) X=(-1,1)Y=(Pi,0)





X=R Y=(Pi/2,-Pi/2) X=R Y=(0,Pi)

0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0
0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	$-$
$-$	$\sqrt{3}$	1	$\frac{\sqrt{3}}{3}$	0

sin2x+cos2x=1
tg x*ctg x=1
tg x=sin x/cos x
ctg x=cos x/sin x
sin(2x)= 2sin x*cos x
cos(2x)=cos²x-sin²x
2sinxcosx = sin 2x

$\log_a x + \log_a y = \log_a (x*y)$ **ln0-> -∞ ln1=0 lne=1 ln∞->∞**
$\log_a x - \log_a y = \log_a (x/y)$ a/∞ = 0, a/0 = ∞
$n*\log_a x = \log_a x^n$ 1/tg = ctg
$\log_a x = \log_b x / \log_b a$ $(a-b)^3$=a3-3a2b+3ab2-b3

LINIOWE RÓWNANIE RÓŻNICZKOWE:
1.lewa=0 RJ, C € R, A>0 2.wynik = RORJ, potem dopisać A(x)
3.pochodna wyniku pkt 2, uzupełnić pierwszy wzór o y' i y = prawa całka całości, wyliczyć A(x), podstawić A(x) do RORJ tj. pkt 2 = RSRN
4. stworzyć RORN (y=....) = RORJ + RSRN

POLE OBSZARU całka dół z lewej x, góra w prawo [f góra – f dół] przy wyliczaniu najpierw postawienie góry całki – dół całki

CAŁKA NIEOZN.WIELOM: dla –del, licz.to wiel.1st = dopasować dla –del, licznik to liczba $ax^2+bx+c= a[(x+b/2a)^2 - \Delta/4a^2]$

$(\sqrt{x})' = \frac{1}{2\sqrt{x}}$

$f(x)^{g(x)'} = e^{g(x)*\ln f(x)}$

$\sqrt[n]{x^m} = x^{\frac{m}{n}}$

$\frac{1}{x^n} = x^{-n}$

$x^n = nx^{n-1}$

$\frac{1}{x^2} = x^{-2} = -2x^{-3}$

$\frac{a}{x} = -\frac{a}{x^2}$

$\pi = 1$

$(x^a)' = a*x^{a-1}$

$(a^x)' = a^x \ln a$

$(\log_a x)' = \frac{1}{x \ln a}$

$(\sin x)' = \cos x$

$(\cos x)' = -\sin x$

$(\text{tg } x)' = \frac{1}{\cos^2 x}$

$(\text{ctg } x)' = -\frac{1}{\sin^2 x}$

$(\arcsin x)' = \frac{1}{\sqrt{1-x^2}}$

$(\arccos x)' = -\frac{1}{\sqrt{1-x^2}}$

$(\text{arctg } x)' = \frac{1}{1+x^2}$

$(\text{arcctg } x)' = -\frac{1}{1+x^2}$

----------całki----------

$\sqrt[b]{n^a} = x^{\frac{a}{b}} // \frac{1}{x^a} = x^{-a}$

2. $x^n = \frac{1}{n+1}x^{n+1} + C$

3. $x = \frac{1}{2}x^2 + C$

4. $\frac{1}{x} = \ln|x| + C$

4a. $\frac{1}{x^2} = -\frac{1}{x} + C$

5. $a^x = \frac{a^x}{\ln a} + C$

6. $e^{ax} = \frac{1}{a}e^{ax} + C$

7. $\sin x = -\cos x + C$

7a. $\sin ax = -\frac{1}{a}\cos ax + C$

8. $\cos x = \sin x + C$

8a. $\cos ax = \frac{1}{a}\sin ax + C$

9. $\text{tg } x = -\ln|\cos x| + C$

10. $\text{ctg } x = \ln|\sin x| + C$

11. $\frac{dx}{\cos^2 x} = tgx + C$

12. $\frac{dx}{\sin^2 x} = -ctgx + C$

13. $\frac{dx}{x^2+a^2} = \frac{1}{a}arctg\frac{x}{a} + C$

14. $\frac{dx}{x^2-a^2} = \frac{1}{2a}\ln\left|\frac{x-a}{x+a}\right| + C$

15. $\frac{dx}{\sqrt{a^2-x^2}} = arcsin\frac{x}{a} + C$

16. $\frac{dx}{\sqrt{x^2+q}} = \ln|x + \sqrt{x^2+q}| + C$

17. $-\frac{1}{1+x^2} = \text{arcctg } x + C$

18. $\frac{-1}{\sqrt{1-x^2}} = \arccos x + C$

19. $\arcsin x = \sqrt{1-x^2} + x*\arcsin x + C$

POCHLOG: $f'(x)/f(x) = \ln(f(x)) + C$