$tgx - tg2x=sinx$

$tgx-sin2x/cos2x=sinx$

$sinx/cosx-sin2x/cos2x=sinx$

$sinx/cosx-sin2x/cos2x-sinx=0$

$(sinx*cos2x-sin2x*cosx-sinx*cosx*cos2x)/cosx*cos2x=0$

$(sinx*cos2x-2*sinx*cos^{2} x-sinx*cosx*cos2x)/cosx*cos2x=0$

$(sinx(cos2x-2cos^{2} x-cosx*cos2x))/cosx*cos2x=0$

$sinx(cos2x-2cos^{2} x-cosx*cos2x)=0$

$cosx*cos2x \ne 0$

1) $sinx=0$

2) $cos2x-2cos^{2} x-cosx*cos2x=0$

1) $x=Pn$

2) $2*cos^{2} x-1-2cos^{2} x-cosx*(2*cos^{2} x-1)=0$

$-(1+cosx*(2*cos^{2} x-1))=0$

$1+cosx*(2*cos^{2} x-1)=0$

$1+2cos^{3} x-cosx=0$

$cosx=t$

$2t^{3}-t+1=0$

$\frac{1}{2};-\frac{1}{2};1;-1$

$t1=-1$

$2t^{2}-2t+1=0$

$D=1-2=-1$

$cosx=-1$

$x=P+2Pn$

Ответ: Pn.

Проверка

$x1=2Pn$ $x2=P+2Pn$

X1: $cosx*cos2x =cos(2Pn)cos(4Pn)=1*1 \ne 0$

X2: $cosx*cos2x =cos(P+2Pn)cos(2P+4Pn)=(-1)*1=-1 \quad -1 \ne 0$

	2	0	-1	1
-1	2	-2	1	0

$cos2x-2cos^{2} x-cosx*cos2x=0$

$2*cos^{2} x-1-2cos^{2}$
$x-cosx*cos2x=0$

$-1-cosx*cos2x=0$

$cosx*cos2x=-1$

1 случай

$cosx=1$

$cos2x=-1$

$x1=2Pn$

$2x=P+2Pn$

$x2=P/2+Pn$

Решений нет

Или

2 случай

$cosx=-1$

$cos2x=1$

$x1=P+2Pn$

$2x=2Pn$

$x2=Pn$

Ответ[случай 2] $=P+Pn$