$2tgx + tg2x=tg4x$

$tgx + tg2x=tg4x - tgx$

$sinx/cosx + sin2x/cos2x = sin4x/cos4x - sinx/cosx$

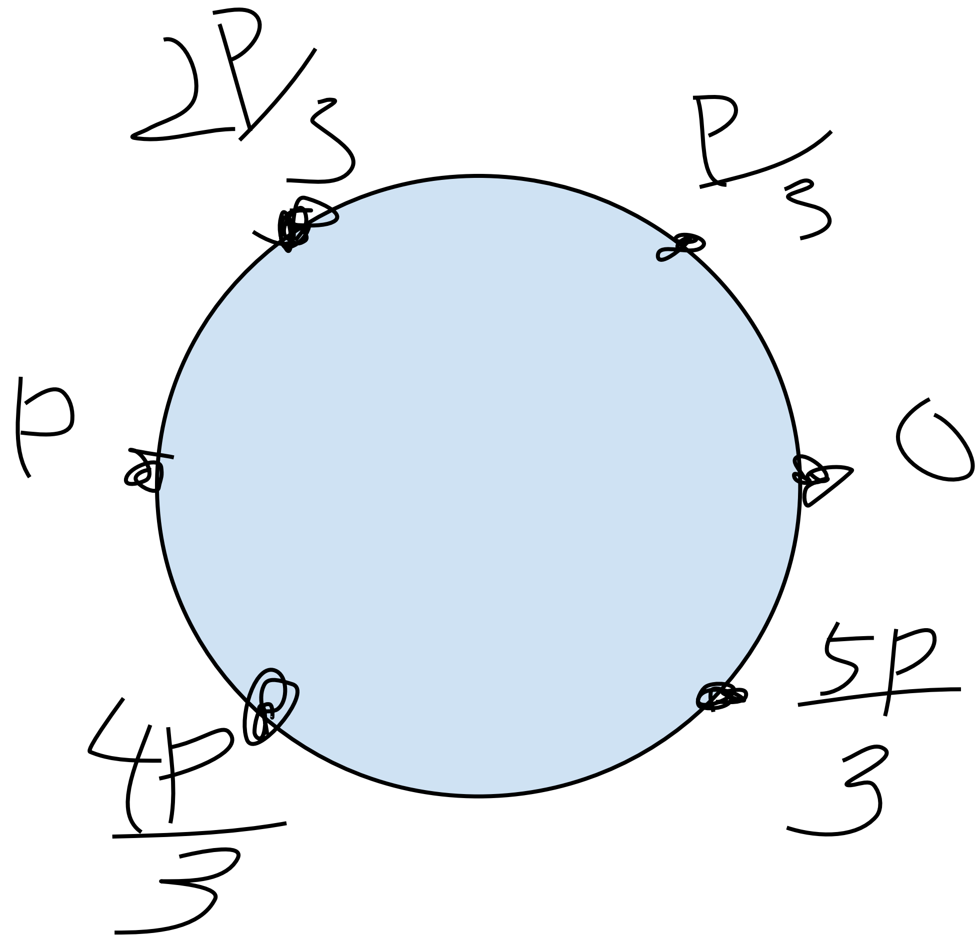
$(sinx*cos2x+sin2x*cosx)/cosxcos2x =$

$(sin4x*sinx-cos4x*cosx)/cos4xcosx$

$sin(3x)/cosxcos2x = sin3x/cos4xcosx$

$sin3x(1/cosxcos2x - 1/cos4xcosx) = 0$

$x = Pk/3$



1способ

$(cos4x - cos2x)/cosxcos2xcos4x = 0$

$cos4x - cos2x=0$

$cos2x=-\frac{1}{2}$ $cos2x=1$

$x=P/3+Pk$

$x=2P/3+Pk$

$x=Pk$

2способ

$cos4x - cos2x=0$

$cosa - cosb =$ **$-2sin((a+b)/2)*sin((a-b)/2)$**

$sin3x = 0$ $sinx = 0$

$x= Pk/3$ $x = Pk$

Ответ $x = Pk/3$