2tgx + tg2x=tg4x

2*sinx/cosx+sin2x/cos2x=sin4x/cos4x
2*sinx/cosx+2*sinx*cosx/cos2x=2*sin2x*cos2x/cos4x
2*sinx/cosx+2*sinx*cosx/cos2x=4*sinx*cosx*cos2x/cos4x
sinx/cosx+sinx*cosx/cos2x-2*sinx*cosx*cos2x/cos4x=0
sinx/cosx+sinx*cosx(1/cos2x-2cos2x/cos4x)=0
sinx(1/cosx+cosx(1/cos2x-2cos2x/cos4x))=0
1)sinx=0
2)1/cosx+cosx(1/cos2x-2cos2x/cos4x)=0
1)x=Pn
2)1/cosx+cosx/cos2x-2cos2x*cosx/cos4x=0
(cos2x+cosx^2)/cosx*cos2x-2cos2x*cosx/cos4x=0
(2cos^2x-1+cos^2x)/cosx*(2cos^2x-1)-2cosx(2cos^2x-1)*cosx/(2cos^2 2x-1)=0
(3cos^2 x-1)/(2cos^3-cosx)-2cosx(2cos^2 x-1)*cos/(4cos^4 x-2)=0

cosx!=0
cos2x!=0
cos4x!=0
cosx!=0
x!=P/2+Pn
cos2x!=0
2x!=P/2+Pn
x!=P/4+Pn/2
cos4x!=0
4x!=P/2+Pn
x!=P/8+Pn/4

2 путь
2tgx + tg2x=tg4x
tgx+tgx + tg2x=tg4x
tgx + tg2x=tg4x-tgx
Превращаем все в sin/cos и т д
sinx/cosx+sin2x/cos2x=sin4x/cos4x-sinx/cosx
(sinx*cos2x+sin2x*cosx)/cosx*cos2x=(sin4x*cosx-sinx
*cos4x)/cosx*cos4x
sin(x+2x)/cosx*cos2x=sin(4x-x)/cosx*cos4x
sin3x/cosx*cos2x=sin3x/cosx*cos4x
sin3x/cosx(1/cos2x-1/cos4x)=0
sin3x/cosx=0
sin3x=0
3x=Pn
x=Pn/3
1/cos2x-1/cos4x=0
(cos4x-cos2x)/cos2x*cos4x=0
cos4x-cos2x=0
2cos^2 2x-1-cos 2x=0
cos2x=y
2y^2-y-1=0
y1=(1+3)/4=1
y2=(1-3)/4=-½
cos2x=1
2x=2Pn
x=Pn
cos2x=-½
2x=2P/3+2Pn
2x=4P/3+2Pn
x1=P/3+Pn
x2=2P/3+Pn
Ответ:Pn/3;

P/8+P/4 > P/3