2tgx + tg2x=tg4x

tgx + tg2x=tg4x - tgx

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)

sin(3x)/(cosx*cos2x)-sin(3x)/(cosx*cos4x)=0

sin3x(1/(cosx*cos2x)-1/(cosx*cos4x))=0

sin3x=0

3x=pk

x=pk/3

1/(cosx*cos2x)-1/(cosx*cos4x)=0

(cos4x-cos2x)/(cosx*cos2x*cos4x)=0

(cosx*cos2x*cos4x)!=0

(cos4x-cos2x)=0

2cos^2 2x - 1 - cos2x=0

cos2x=t

2t^2-t-1=0

D=1+8=9

x1=(1-3)/4=-½

x2=(1+3)/4=1

cos2x=-½

2x=+-2p/3+2pk

x=+-p/3+pk

cos2x=1

2x=2pk

x=pk

cosx!=0   x=p/3

x!=p/2+pk

cos2x!=0

2x!=p/2+pk

x!=p/4+pk/2

cos4x!=0