sinx * cos(x+y) + sin(x+y)=3cos(x+y)
4sinx = 5ctg(x+y)

sinx * cos(x+y) + sin(x+y)=3cos(x+y)
sinx * cos(x+y) + sin(x+y)-3cos(x+y)=0
sinx * cos(x+y) +sinx*cosy+siny*cosx-3cosx*cosy+3siny*sinx=0
sinx*(cosx*cosy-siny*sinx)+sinx*cosy+siny*cosx-3cosx*cosy+3siny*sinx=0
sin2x/2-sin^2x*siny+sinx*cosy+siny*cosx-3cosx*cosy+3siny*sinx=0

sinx*ctg(x+y)+1=3ctg(x+y)

sinx=a
ctg(x+y)=b

ab+1=3b
4a=5b

ab+1=3b
a=5/4b

5/4b^2+1=3b

5b^2-12b+4=0
D/4=36-20=16
b1=(6+4)/5=2
b2=(6-4)/5=⅖

a1=10/4=5/2
a2=½

sinx=5/2 - невозможно

sinx=½
x1=p/6+2pk
x2=5p/6+2pk

ctg(x+y)=⅖
x+y=arcctg(⅖)+pn

y1=arcctg(⅖)+pn-p/6+2pk
y2=arcctg(⅖)+pn-5p/6+2pk

Ответ:(p/6+2pk;arcctg(⅖)+pn-p/6+2pk),(5p/6+2pk;arcctg(⅖)+pn-5p/6+2pk)