cosx*sin(x/4) + 9/10 * sinx +2sin(x/4) * cos(x/2) + sin(x/4) - ½*cos(x/4) - 9/20=0
sin(x/4)*(cosx+1)+9/20*(2sinx-1)+2sin(x/4)*cos(x/2)-½*cos(x/4)=0
sin(x/4)*(cosx+1+2cos(x/2))+9/20*(2sinx-1)-½*cos(x/4)=0
sin(x/4)*(2cos^2 (x/2)-1+1+2cos(x/2))+9/20*(2sinx-1)-½*cos(x/4)=0
2sin(x/4)*cos(x/2)*(cos (x/2)+1)+9/20*(2sinx-1)-½*cos(x/4)=0
4sin(x/4)*cos(x/2)*cos^2 (x/4)+9/20*(2sinx-1)-½*cos(x/4)=0
cos(x/4)*(4sin(x/4)*cos(x/2)*cos(x/4)-½)+9/20*(2sinx-1)=0
2sinx*cosx=sin(2x)
cos(x/4)*(2*cos(x/2)*sin(x/2)-½)+9/20*(2sinx-1)=0
cos(x/4)*(sinx-½)+9/20*(2sinx-1)=0
½*cos(x/4)*(2sinx-1)+9/20*(2sinx-1)=0
(2sinx-1)*(½*cos(x/4)+9/20)=0
2sinx-1=0
sinx=½
x=P/6+2Pn
x=5P/6+2Pn
½*cos(x/4)+9/20=0
cos(x/4)=-9/10
x/4=arccos(-9/10)+2Pn
x=4arccos(-9/10)+8Pn
x=-4arccos(-9/10)+8Pn

x лежит в [-9P/2;-3P/2]

1) x1=P/6+2Pn
-9P/2<=P/6+2Pn<=-3P/2
-9/2<=⅙+2n<=-3/2
-27<=1+12n<=-9
-28<=12n<=-10
-7/3<=n<=-5/6
n1=-2
n2=-1
x1_1=P/6-4P=-23P/6
x1_2=P/6-2P=-11P/6

2) x2=5P/6+2Pn
-9P/2<=5P/6+2Pn<=-3P/2
-27<=5+12n<=-9
-32<=12n<=-14
-8/3<=n<=-7/6
n1=-2
x2=5P/6-4P=-19P/6

P/8 V arccos(9/10)
cosP/8 V cos(arccos(9/10))
cost=cosP/8 V 9/10

cosP/4 = V2/2 = cos 2t
Cos 2t=2cos^2 t-1
2cos^2 t=V2/2+1
cost=+-V(V2/4+½)
cost=+-V((V2+2)/4)

cos(P/8=V((V2+2)/4)

V((V2+2)/4) V 9/10
(V2+2)/4 V 81/100
25V2+50 V 81
25V2 V 31
625*2 > 961
cos(P/8) > 9/10
arccos(9/10)>P/8

P/8 > arccos(9/10)

3) x3=4arccos(-9/10)+8Pn
-9P/2<=4arccos(-9/10)+8Pn<=-3P/2
-9P/8<=arccos(-9/10)+2Pn<=-3P/8
Решений нет

4) x4=-4arccos(-9/10)+8Pn
-9P/2<=-4arccos(-9/10)+8Pn<=-3P/2
-9P/8<=-arccos(-9/10)+2Pn<=-3P/8
n=0
x4=-4arccos(-9/10)

Ответ: -23P/6; -11P/6; -19P/6; -4arccos(-9/10)