2sinx*cos^2 x + cos^4 x =2sinx + cos2x + cos^2 x | +sin^2 x

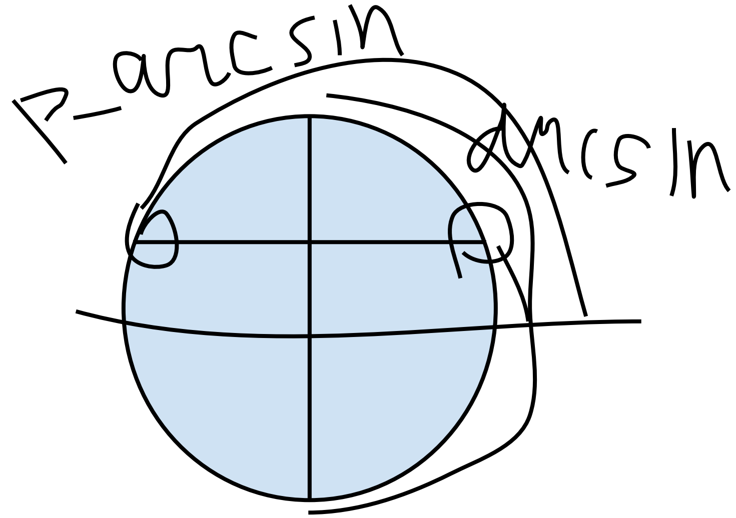
sin^2 x + 2sinx*cos^2 x + cos^4 x =sin^2 x +   2sinx + cos2x + cos^2 x
(sinx + cos^2 x)^2 = 1 + 2sinx + cos2x

cos2x=cos(x+x)=cosx*cosx-sinx*sinx=cos^2 x-sin^2 x=
=1-sin^2x-sin^2 x=1-2*sin^2x=
=cos^2 x - (1- cos^2 x)=2*cos^2 x-1

(sinx + cos^2 x)^2 = 1 + 2sinx + 2cos^2 x   - 1
(sinx + cos^2 x)^2 = 2(sinx + cos^2 x)
sinx + cos^2 x=t
t^2=2t
t^2-2t=0
t(t-2)=0
t=0   t=2

sin x + cos^2 x=0
sin x + 1- sin^2 x=0
h=sinx
h+1-h^2=0
h^2-h-1=0
h1,2=(1+-V5)/2
sinx=(1+V5)/2   sinx=(1-V5)/2
нет решений   x=arcsin((1-V5)/2) + 2Pk
                       x=P-arcsin((1-V5)/2) + 2Pk

Ответ {arcsin((1-V5)/2) + 2Pk} U {P-arcsin((1-V5)/2) + 2Pk}



sinx + cos^2 x=2
sin x + 1- sin^2 x=2
h+1-h^2=2
h^2-h+1=0
D<0