sinx - sin15x*cosx = 3/2
подсказка
Asinx +Bcosx = 3/2
A=1 B=-sin15x
V(1+sin^2 15x)(sinx (1/V(1+sin^2 15x)) +cosx *
(-sin15x/(1+sin^2 15x))=3/2

V(1+sin^2 15x)*sin(x+t)=3/2
max(V(1+sin^2 15x)*sin(x+t)) =V2=1.4…< 3/2

cost=1/V(1+sin^2 15x)
t=arccos(1/V(1+sin^2 15x))
t=-arccos(1/V(1+sin^2 15x))

sint=-sin15x/(1+sin^2 15x)
t=arcsin(-sin15x/(1+sin^2 15x))
t=P-arcsin(-sin15x/(1+sin^2 15x))

Ответ: решений нет

sin3x - 2sin18x*sinx = 3V2 - cos3x + 2cosx
sin3x + cos3x=3V2 + 2sin18x*sinx + 2cosx

V2sin(P/4+3x)=3V2 +V(4+4sin^2 18x)*sin(x+t)
V2sin(P/4+3x)=3V2 +2V(1+sin^2 18x)*sin(x+t)

V2sin(P/4+3x)=V2
sin(P/4+3x)=1
P/4+3x=P/2+2Pk
3x=P/4+2Pk
x=P/12+2Pk/3
2V(1+sin^2 18x)*sin(x+t)=-2V2

cost=2sin18x/V(4+4sin^2 18x)
sin t= 2/V(4+4sin^2 18x)

1)x=P/12
cost=(2sin3P/2)/V(4+4sin^2 3P/2])
cos t =-2/2V2
cos t=-V2/2
sint=2/V(4+4sin^2 3P/2)
sint=V2/2
t=3P/4
2V2*sin(5P/6)=-2V2
sin(5P/6)!=-1 ---- не подходит
2)x=3P/4
cost=2sin27P/2/V(4+4sin^2 27P/2)
cost=2sin27P/2/V(4+4sin^2 3P/2)
cost=2sin3P/2/V(4+4sin^2 3P/2)
cos t=-V2/2
sin t= 2/V(4+4sin^2 18x)
sin t= 2/V(4+4sin^2 3P/2)
sint=V2/2
t=3P/4
2V(1+sin^2 18x)*sin(x+t)=-2V2
2V(1+sin^2 3P/2)*sin(3P/2+3P/4)=-2V2
sin(3P/2+3P/4)=-1-- не подходит
3) x= 17P/12
cost=2sin18x/V(4+4sin^2 18x)
sin t= 2/V(4+4sin^2 18x)
cost=2sin3P/2/V(4+4sin^2 3P/2)
cos t=-V2/2
sin t= 2/V(4+4sin^2 3P/2)
sint=V2/2
t=3P/4
2V(1+sin^2 3P/2)*sin26P/12=-2V2
2V(1+sin^2 3P/2)*sinP/6=-2V2
sinP/6!=-1 -- не подходит