sinx*cosy=½[sin(x+y) + sin(x-y)]
cosx*cosy=½[cos(x+y) + cos(x-y)]
siny*sinx=(-½)[cos(x+y) - cos(x-y)]

cosx+cos2x+...+cos(n-1)x+cosnx=? ||*sin(x/2)
cosxsin(x/2)+cos(2x)sin(x/2)+cos(3x)sin(x/2)+.....cos((n-1)x)sin(x/2)+cos(nx)sin(x/2)=?
½[sin(3x/2)+sin(-x/2)+sin5x/2+sin(-3x/2)+sin(7x/2)+sin(-5x/2).....+sin(x(2n-1)/2)+sin(-x(2n-3)/2)+sin(x(2n+1)/2)+sin(-x(2n-1)/2)]=
=½[sin(-x/2)+sin(x(2n+1)/2)]=sin([x(2n+1)/2)-x/2]/2)*cos([x(2n+1)/2)+x/2]/2)=sin([x(2n+1)-x]/4)*cos([x(2n+1)+x]/4)=
=sin(nx/2)*cos(x(n+1)/2)=?*sin(x/2)
?=sin(nx/2)*cos(x(n+1)/2)/sin(x/2)

sinx+sin2x+...+sin(n-1)x+sinnx=?||sinx/2
-½[-cos(x/2)+cos(x(2n+1)/2)]=-½[cos(x(2n+1)/2)-cos(x/2)]=sin(nx/2)*sin(x(n+1)/2)=?sinx/2
?=sin(nx/2)*sin(x(n+1)/2)/sin(x/2)