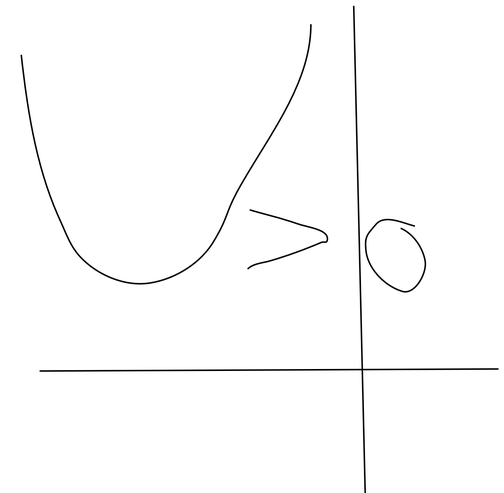
7.32-7.35

cosx+cos2x+...+cos(n-1)x+cosnx=sin(nx/2)*cos(x(n+1)/2)/sin(x/2)

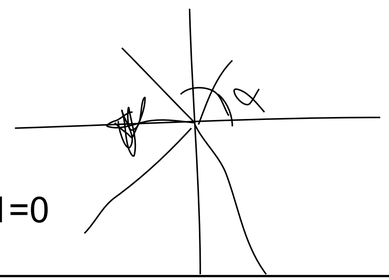
cos(2P/7)+cos(2*2P/7)+cos(3*2P/7)=sin(3P/7)cos(4P/7)/sin(P/7)=(0-sin(P/7))/(2sinP/7)=-½

cos(2P/7)*cos(2*2P/7)*cos(3*2P/7)=cosx*cos2x*cos3x=½ (cos4x+cos2x)cos2x=½(cos4xcos2x+cos^2(2x))

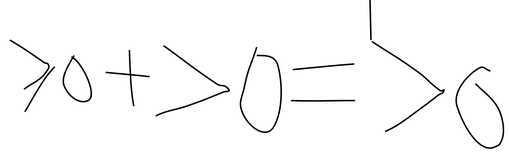


A=cosx*cos2x*cos3x
Asinx=cosx*sinx*cos2x*cos3x
Asinx=½ *sin2x*cos2x*cos3x
Asinx=¼(sin4x*cos3x)=⅛(sin7x+sinx)
A=⅛(sin7x+sinx)/sinx
A=⅛(sin(2P)/sinx+1)=⅛

7.32



x^4+x^3+x^2+x+1=0
x=|z|(cosa+isina)
|z|^4(cos4a+isin4a)+|z|^3(cos3a+isin3b)+|z|^2(cos2a+isin2a)+|z|(cosa+isina)+1=0



z^4+z^3+z^2+z+1=0
z^2+z+1+1/z+1/z^2=0
z^2+1/z^2+z+1/z+1=0
z+1/z=w
w^2=z^2+2z/z+1/z^2=>>z^2+1/z^2=w^2-2
(w)^2+(w)-1=0
w^2+w-1=0
D=1+4=5
w=(-1+-V5)/2
z+1/z=(-1+-V5)/2
z^2+(1+V5)/2 *z +1=0

z^2+(1+V5)/2 *z +1=0
D=3/2+V5/2-4=V5/2-5/2
z=(-1-V5+-V(V5/2-5/2)/2

z^2+(1-V5)/2 *z +1=0
D=3/2-V5/2-4=-V5/2-5/2
z=(-1-V5+-V(-V5/2-5/2)/2