|  |  |
| --- | --- |
| Cos(x1-x2)=cosx1cosx2+sinx1sinx2  Cos(x1+x2)=cosx1cosx2–sinx1sinx2  Sin(x1+x2)=sinx1cosx2+cosx1sinx2  Sin(x1-x2)=sinx1cosx2-cosx1sinx2  Tg(x1+x2)=tgx1+tgx2 **/** 1-tgx1tgx2  Tg(x1-x2)=tgx1-tgx2 **/** 1+tgx1tgx2  Ctg(x1+x2)=ctgx1ctgx2-1 **/** ctgx1+ctgx2  Ctg(x1-x2)=ctgx1ctgx2+1 **/** ctgx1-ctgx2 | Sin2x=2sinxcosx  Cos2x=cos2x-sin2x  Tg2x=2tgx / 1-tg2x  Ctg2x=ctg2x-1 / 2ctgx  Sin3x=3sinx-4sin3x  Cos3x=4cos3x-3cosx  Tg3x=3tgx-tg3x/1-3tg2x  Ctg3x=ctg3x-3ctgx/3ctg2x-1 |
| Sinx1+sinx2=2sinx1+x2***/*2** cosx1-x2***/*2**  Sina\*sinb=1***/*2**(sin(a+b)+sin(a-b))  Sinx1-sinx2=2cosx1+x2***/*2** sinx1-x2***/*2**  Cosx1+cosx2=2cosx1+x2***/*2** cosx1-x2***/*2**  Cosa\*cosb=1***/*2**(cos(a+b)+cos(a-b))  Cosx1-cosx2=-2sinx1+x2***/*2** sinx1-x2***/*2**  Sina\*sinb=-1/**2**(cos(a+b)-cos(a-b))  Tgx1+tgx2=sin(x1+x2)***/***cosx1cosx2  Ctgx1+ctgx2=sin(x2+x1)***/***sinx1sinx2 |

|  |
| --- |
| Sinx=2sinx***/***2 cosx***/***2  Cosx=cos2x***/***2-sin2x***/***2  1=sin2x***/***2+cos2x***/***2 |