**Аyniyatlarni isbotlang**

1. *arccosx+arcsinx=π/2; 2. arctgx+arctg=π/4, agar x>-1;*

*3. arctgx=arcsin 4. arctgx+arctg=-3π/4, agar x<-1;*

*5. arcsin=π-arctgx, agar x≥1; 6. arcsinx=arctg, agar -1<x<1;*

*7. cos2x=cos2x-sin2x; 8. arcsin=2arctgx, agar -1≤x≤1;*

*9. sin6x+cos6x=1/4+3/4(cos2x-sin2x)2; 10. cos4x-1/8cos4x=2cos2x-1/2cos2x-5/8;*

*11. arcsin=-π-2arctgx, agar x≤-1; 12. arctgx=arcctg, agar x>0;*

*13. 0,5arccos(2x2-1)=arccosx, x≥0*

**Tengsizliklarni isbotlang**

*14. cosx>1-x2/2, agar x>0; 15. sinx>x-x3/6, agar x>0;*

*16. 2>3-1/x, agar x>1; 17. ex≥1+x+x2/2; agar x≥0;*

*18. ln(1+x)≤x, agar x≥0; 19. ln(1+x)≥x-x2/2, agar x≥0;*

*20. , agar 0<x<y<π/2; 21. , agar 0<x<y<π/2;*

*22. x+x3/3<tgx, agar 0<x<π/2; 23. 2x4-4x3+3x2+4x+1>0, agar x>0;*

*24. 2x+1/x2>5, agar 0<x<0,5; 25. x5+(1-x)5≥1/16, x∈R*