

**Assignment**

1. If tanA=cot(300+A) , find the value of A.

2. Prove that $\sqrt{\frac{cosecA-1}{cosecA+1}}+\sqrt{\frac{cosecA+1}{cosecA-1}}=2secA$

3. If sinθ−cosθ=0, then find the value of (sin4θ+cos 4θ)

4. Show that $\frac{sinθ}{cosecθ-1}+\frac{cosθ}{1+secθ}=\frac{sinθcosθ}{sinθ-cosθ}$

5. Prove that sec 6 θ= tan 6θ + 3 tan 2θ sec 2θ + 1

6. Show that 2(cos4600 +sin4300) – ( tan2600+cot2450) + 3sec2300 = $\frac{1}{4}$

 (or)

 7. If A and B acute angles such that tanA=$\frac{1}{2}$  tanB=$\frac{1}{3}$ and tan(A+B)=$ \frac{tanA+tanB}{1-tanAtanB} $ find A +B