1. Let f(z)=u(x,y)+iv(x,y) and exists at then show that and .
2. Find harmonic conjugate of u(x,y)=2xy+2x.
3. Find the general value of .
4. Show that .
5. Let f be analytic in a domain D and be a simple closed contour in D, taken positive sence .Then show that for all .
6. Let f be analytic in a domain D and C={Z:|Z-a|=R} contained in D.Then where M= .
7. Using complex integration find a,m>0 .
8. State Liouville’s theorem .Show that if f is an entire function such that Re(f) is bounded then f is constant.
9. Find Laurent series expansion of arroud 1<|z|<2.