

Conformal Transformation

Let the transformation

$$\left. \begin{aligned} u &= u(x, y) \\ v &= v(x, y) \end{aligned} \right\} \text{--- (1)}$$

map the point $P(z_0)$ (ie, $P(x_0, y_0)$) of the z -plane into the point $P'(w_0)$ (ie, $P'(u_0, v_0)$) of the w -plane and let the curves

C_1 and C_2 intersecting at point $P(z_0)$ be mapped respectively, into curves C'_1 and C'_2 intersecting at (u_0, v_0) .

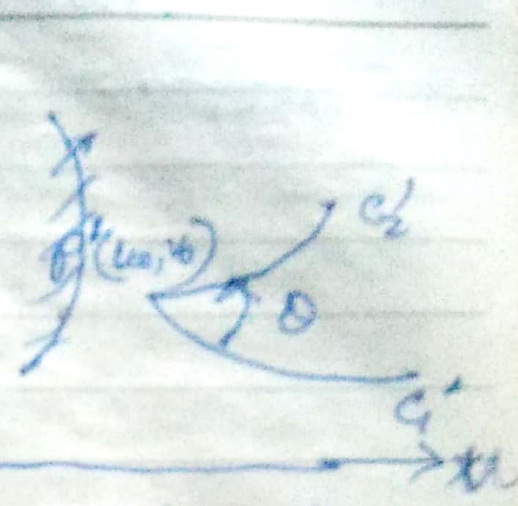
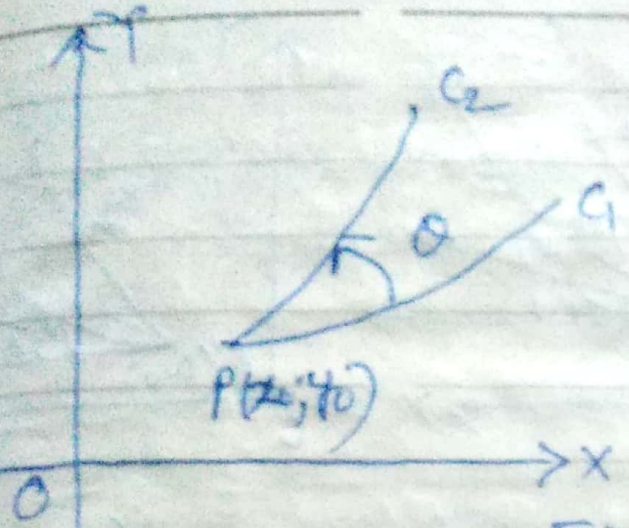
Then if the angle at (x_0, y_0) between C_1 and C_2 is equal to the angle between C'_1 and C'_2 both in magnitude and sense then the transformation or mapping is said to be conformal at (x_0, y_0) (fig I)

A mapping which preserves the magnitude of angles but not necessarily the sense of rotation is called isogonal (fig II)

नवम्बर 2004						
रवि	सोम	मंगल	बुध	गुरु	शुक्र	शनि
-	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

रक 12

रति 13



Fig(I) Conformal transformation

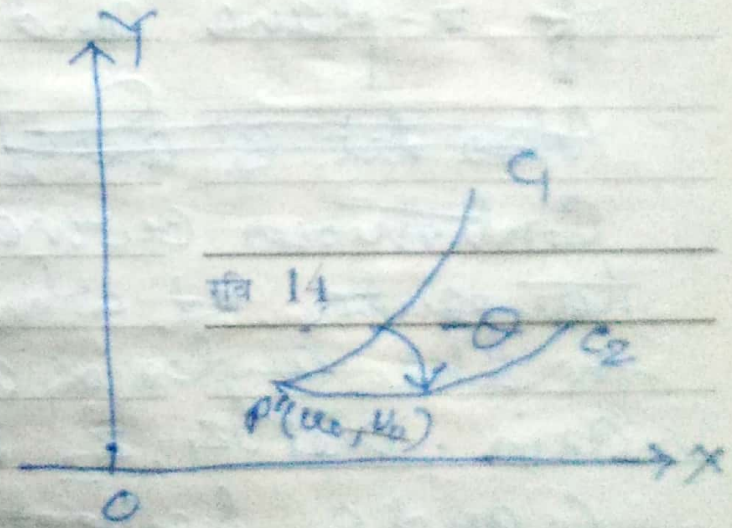
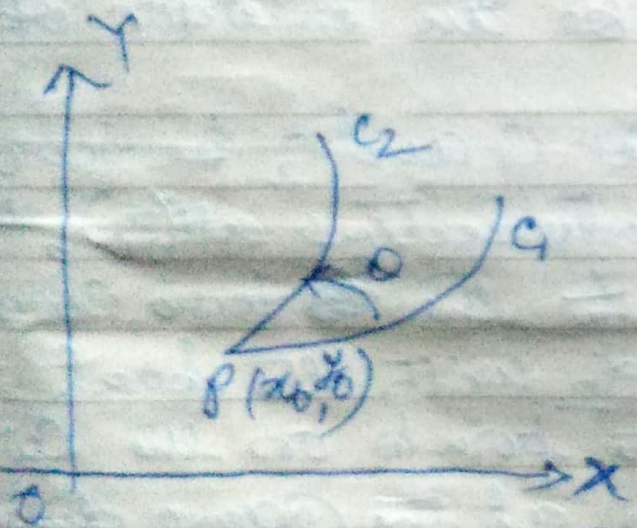


Fig II

रति 14