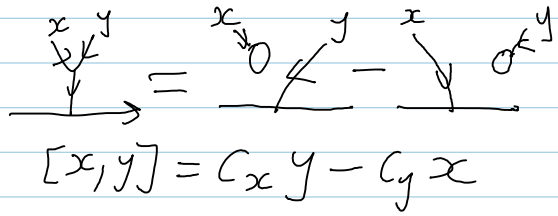
The Foundations of beta Calculus, II

May-04-12
7:46 AM

1. Go over "Foundations I" handout.

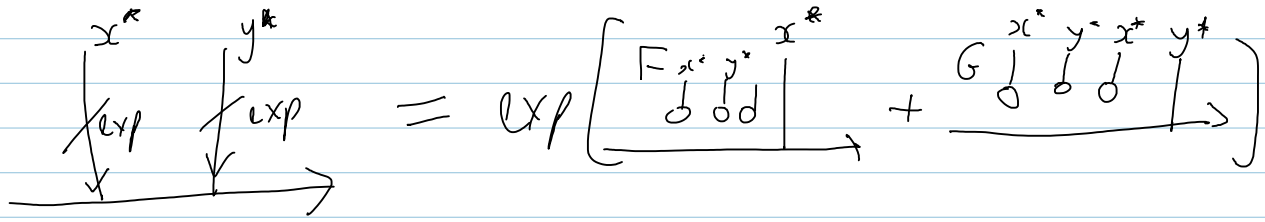


Claim Mod the β-relations,

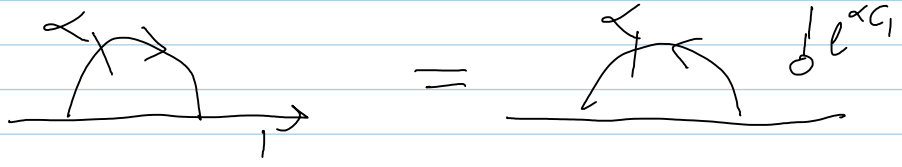
$$e^{\alpha x} e^{\beta y} =$$

$$\exp\left[\frac{\alpha C_x + \beta C_y}{e^{\alpha C_x + \beta C_y} - 1}\left(\frac{e^{\alpha C_x} - 1}{\alpha C_x}\alpha x + e^{\alpha C_x}\frac{e^{\beta C_y} - 1}{\beta C_y}\beta y\right)\right]$$

$$= \exp\left(\frac{1}{j(\alpha C_x + \beta C_y)}\left(j(\alpha C_x)\alpha x + e^{\alpha C_x} j(\beta C_y)\beta y\right)\right)$$



Claim Modulo the β relations,



Claim