

The first equation should be labelled with a one

$$t'^2 - x'^2 - y'^2 - z'^2 = t^2 - x^2 - y^2 - z^2. \quad (1)$$

Now the second equation has letters in the equation references and should be labelled with a 2

$$t' - z' = (t - z)\alpha\bar{\alpha} + (x + iy)\alpha\bar{\beta} + (x - iy)\beta\bar{\alpha} + (t + z)\beta\bar{\beta}, \quad (2a)$$

$$x' + iy' = (t - z)\alpha\bar{\gamma} + (x + iy)\alpha\bar{\delta} + (x - iy)\beta\bar{\gamma} + (t + z)\beta\bar{\delta}, \quad (2b)$$

$$t' + z' = (t - z)\gamma\bar{\gamma} + (x + iy)\gamma\bar{\delta} + (x - iy)\delta\bar{\gamma} + (t + z)\delta\bar{\delta}. \quad (2c)$$

Now the third equation also has letters in the equation reference and should be labelled with a 3

$$\alpha\bar{\beta} + \bar{\alpha}\beta = 0, \quad (3a)$$

$$i(\alpha\bar{\beta} - \bar{\alpha}\beta) = 0, \quad (3b)$$

$$-\alpha\bar{\alpha} + \beta\bar{\beta} = -1, \quad (3c)$$

$$\alpha\bar{\alpha} + \beta\bar{\beta} = 1. \quad (3d)$$

Now reference the first equation, (1).

Now reference the second equations (2a) and (2b) and (2c).

Now reference the third equations (3a) and (3b) and (3c).