$$y = y_I * e^{\frac{-x}{x_I}}$$

$$\frac{x_I}{y_I} = \frac{tokens_I}{BCH_I} = constant\ value$$

$$\frac{500\,tokens}{25\,BCH} = 200\,tokens\ per\ BCH$$

$$BCH = BCH_I * e^{\frac{-1*(token)}{token_I}}$$

$$token = (-1) * token_I * \ln^{\frac{BCH}{BCH_I}}$$

$$token_1 = (-1) * token_I * \ln^{\frac{BCH_1}{BCH_I}}$$

$$token_2 = (-1) * token_I * \ln^{\frac{BCH_1 + bchIn}{BCH_I}}$$

$$token_{out} = |token_2 - token_1|$$

$$BCH_1 = BCH_I * e^{\frac{-1*(token_1)}{token_I}}$$

$$BCH_2 = BCH_I * e^{\frac{-1*(tokenIn + token_1)}{token_I}}$$

$$bch_{out} = |bch_2 - bch_1|$$