

### ***Bancor v2 Real Curve Relationship between curves***

$$P_{low\_1} = P_{high\_2} \Leftrightarrow$$

$$\frac{A^2}{(A-1)^2} * \frac{y_{0\_1}}{x_{0\_1}} = \frac{(A-1)^2}{A^2} * \frac{y_{0\_2}}{x_{0\_1}} \Leftrightarrow$$

$$\frac{x_{0\_2}}{y_{0\_2}} * \frac{y_{0\_1}}{x_{0\_1}} = \frac{(A-1)^4}{A^4} \Leftrightarrow$$

$$\frac{P_{0\_1}}{P_{0\_2}} = \frac{(A-1)^4}{A^4} \Leftrightarrow$$

Considering  $P_{0\_1}$  as a constant:

$$P_{0\_2} = \frac{P_{0\_1} * A^4}{(A-1)^4} \Leftrightarrow$$

$$\frac{y_{0\_2}}{x_{0\_2}} = \frac{P_{0\_1} * A^4}{(A-1)^4} \Leftrightarrow$$

With  $K = \frac{P_{0\_1} * A^4}{(A-1)^4}$ :

$$\frac{y_{0\_2}}{x_{0\_2}} = K \Leftrightarrow$$

$$y_{0\_2} = K * x_{0\_2}$$