# Formulas for Computing ndau Ecosystem Values

## Phase 1 Only – 0 to 10,000,000 ndau issued

| | | |
|---|---|---|
| block | = | 1,000 ndau (blocks are numbered beginning with 0) |
| *b* | = | Block number for a given *ndau* = $int\left(\frac{ndau}{1000}\right)$ |
| *Q* | = | Number of doublings per block = 14 / 10,000 = 0.0014 |
| *R* | = | Phase 1 block ratio = *price(block n) / price(block n-1)* = $2^Q$ |

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Target Price for block b

$$R^b$$

Floor Price for block b

$$\frac{(R^b - 1)}{2b * (R - 1)}$$

Ratio of Target Price to Floor Price

$$\frac{2b \cdot R^b \cdot (R - 1)}{R^b - 1}$$

Current block if Target Price is p

$$\log_R p$$

Endowment proceeds after block b

$$\frac{\$1{,}000 * (R^b - 1)}{R - 1}$$

Market cap after block b

$$\$1{,}000 \cdot b \cdot R^b$$

Cost of c blocks starting at block b

$$\frac{\$1{,}000 * (R^{b+c} - R^b)}{R - 1}$$

Number of whole blocks starting at block b that can be purchased for price p

$$\frac{\ln\left(p(R-1) + R^b\right)}{\ln(R)} - b$$