Practice - Solve for x

$$h = \left(r\right)^{x-a} + k$$

Practice - Solve for x

$$h = (r)^{x-a} + k$$

$-K$ $\quad -K$

$$h - K = r^{x-a}$$

$$r^{x-a} = h - K$$

$$\log_r(h-K) = x - a$$

$+a \quad +a$

$$\boxed{x = a + \log_r(h-K)}$$

Practice - Solve for t

$$A = P\left(1 - r\right)^{t}$$

Practice - Solve for t

$$A = P(1-r)^t$$

$$\frac{A}{P} = (1-r)^t$$

$$(1-r)^t = \frac{A}{P}$$

$$\log_{(1-r)}\left(\frac{A}{P}\right) = t$$

$$t = \log_{(1-r)}\left(\frac{A}{P}\right)$$

Practice - Solve for r

$$A = P\left(1 - r\right)^{t}$$

Practice - Solve for r

$$A = P(1-r)^t$$

$$\frac{A}{P} \qquad \frac{P}{P}$$

$$\left(\frac{A}{P}\right)^{1/t} = \left((1-r)^t\right)^{1/t}$$

$$\sqrt[t]{\frac{A}{P}} = 1 - r$$

$$-1 \qquad +1$$

$$-1\left(-1 + \sqrt[t]{\frac{A}{P}}\right) = -r(-1)$$

$$\boxed{r = 1 - \sqrt[t]{\frac{A}{P}}}$$