When t = 1 we want:

$A_0 \cdot e^{-\frac{d}{2} \cdot t} \leq \epsilon$

Which is equal to:

$A_0 \cdot e^{-\frac{d}{2}} \leq \epsilon$

Divide by A_0 (positive number):

$e^{-\frac{d}{2}} \leq \frac{\epsilon}{A_0}$

Take the log:

$-\frac{d}{2} \leq \log \frac{\epsilon}{A_0}$

Multiply by -2:

$d \geq -2 \cdot \log \frac{\epsilon}{A_0}$

Therefore our dampen factor must be at least $-2 \cdot \log \frac{\epsilon}{A_0}$ However if we plug that into the exponential decay function $N_0 \cdot e^{-\lambda \cdot t}$ we get:

$A_0 \cdot e^{-2 \cdot \log(\frac{\epsilon}{A_0}) \cdot -\frac{1}{2} \cdot t}$

Which simplifies to:

$A_0 \cdot e^{\log(\frac{\epsilon}{A_0}) \cdot t}$

Put t into the log-function:

$A_0 \cdot e^{\log((\frac{\epsilon}{A_0})^t)}$

e to the power of some log is always the same as the value itself:

$A_0 \cdot (\frac{\epsilon}{A_0})^t$

And that is what is used in the code!