

## mobius

## **Exponential Function Solving - Growth** (Continuous, Mis-matched Time Units)



continuous exponential growth of social media post

	,	views?
60	<b>T</b> 7	(0.06.5.12)

Α	$V_0 = rac{e^{(r \cdot t \cdot 12)}}{V}$	В	$V_0=rac{V}{e^{(rac{ au}{12})}}$	
С	$V_0 = rac{V}{e^{(r \cdot t \cdot 12)}}$			

3 Solve for the starting views given this model of a continuous exponential growth of social media post

1, 135 
$$= V_0 \cdot e^{(0.07 \cdot 5 \cdot 12)}$$

A 
$$V_0=rac{V}{e^{rac{(r'_1)}{2}}}$$
 B  $V_0=rac{e^{(r\cdot t\cdot 12)}}{V}$  C  $V_0=rac{V}{e^{(r\cdot t\cdot 12)}}$ 

5 Solve for the starting price given this model of a continuously compounding growth of a share price?

$$1,277 = S_0 \cdot e^{(0.07 \cdot 5 \cdot 12)}$$

$${}^{^{\mathsf{A}}}S_0=rac{e^{(r\cdot t\cdot 12)}}{S}\;\; {}^{^{\mathsf{B}}}S_0=rac{S}{e^{(r\cdot t\cdot 12)}}$$

Solve for the starting cash given this model of a continuously compounding growth of money in a savings account?

$$|| 690 = P_0 \cdot e^{(0.02 \cdot 7 \cdot 3)} || 732 = P_0 \cdot e^{(0.05 \cdot rac{4}{7})}$$

$$\stackrel{ extstyle extstyle extstyle P}{P_0} = rac{P}{e^{(rac{r}{t})}} egin{matrix} extstyle extstyle P_0 = rac{P}{e^{(r\cdot t\cdot 3)}} P_0 = rac{e^{(r\cdot t\cdot 3)}}{P}$$

Solve for the starting population given this model of a continuous growth of an insect population?

$$|1$$
, 079  $=P_0\cdot e^{(0.05\cdotrac{6}{7})}$ 

$$P_0=rac{P}{e^{(r\cdotrac{t}{7})}} \;\;\;
vert_{\mathrm{B}} \;\; P_0=rac{e^{(r\cdotrac{t}{7})}}{P}$$

Solve for the starting price given this model of a continuously compounding growth of a share price?

$$859 = S_0 \cdot e^{(0.04 \cdot 9 \cdot 3)}$$

$$egin{aligned} \overset{ extsf{A}}{S}_0 &= rac{S}{e^{(rac{r}{t})}} egin{aligned} \overset{ extsf{B}}{S}_0 &= rac{S}{e^{(r\cdot t\cdot 3)}} egin{aligned} \overset{ extsf{c}}{S}_0 &= rac{e^{(r\cdot t\cdot 3)}}{S} \end{aligned}$$

Solve for the starting downloads given this model of a continuously compounding growth of app downloads?

$$381 = A_0 \cdot e^{(0.04 \cdot 6 \cdot 7)}$$

$$S_0 = rac{e^{(r\cdot t\cdot 12)}}{S} egin{array}{c} \mathsf{B} \ S_0 = rac{S}{e^{(r\cdot t\cdot 12)}} egin{array}{c} \mathsf{A}_0 = rac{e^{(r\cdot t\cdot 7)}}{A} egin{array}{c} \mathsf{A}_0 = rac{A}{e^{(rac{r}{t})}} egin{array}{c} \mathsf{A}_0 = rac{A}{e^{(r\cdot t\cdot 7)}} \egin{array}{c} \mathsf{A}_0 = rac{A}{e^{(r$$

Solve for the starting population given this model of a continuous growth of an insect population?

$$732 = P_0 \cdot e^{(0.05 \cdot rac{4}{7})}$$

$$\stackrel{ extstyle extstyle extstyle P}{P_0} = rac{P}{e^{(rac{r}{ au})}} egin{bmatrix} extstyle B \ P_0 = rac{P}{e^{(r \cdot t \cdot 3)}} egin{bmatrix} extstyle C \ P_0 = rac{P}{e^{(r \cdot rac{t}{ au})}} egin{bmatrix} extstyle P_0 = rac{P}{e^{(rac{r}{ au})}} egin{bmatrix} ex$$

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