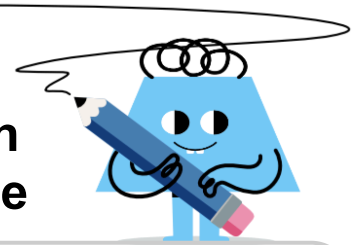
Name

Exponential Function Solving - Growth (Continuous) Scenario to Value at Time



1

An app starts with 700 downloads. Its download count grows continually by 9% each year.After 2 years it has a larger number of downloads.

Solve for the final downloads given this scenario?

A $5 + A = A_0 - e^{(r \cdot t)}$	B $1 + A = A_0 - e^{(r \cdot t)}$
C $A = A_0 \cdot e^{(r \cdot t)}$	

2

A credit card starts with $300 of debt. It grows continuously at 4% interest per quarter. After 2 quarters the debt has grown to a certain amount.

Solve for the final debt given this scenario?

A $2 + D = D_0 - e^{(r \cdot t)}$	B $0 + D = D_0 \cdot e^{(\frac{r}{t})}$
C $D = D_0 \cdot e^{(r \cdot t)}$	D $4 + D = D_0 - e^{(r \cdot t)}$

3

A credit card starts with $900 of debt. It grows continuously at 2% interest per quarter. After 4 quarters the debt has grown to a certain amount.

Solve for the final debt given this scenario?

A $9 + D = D_0 \cdot e^{(\frac{r}{t})}$	B $5 + D = D_0 - e^{(r \cdot t)}$
C $3 + D = D_0 - e^{(r \cdot t)}$	D $D = D_0 \cdot e^{(r \cdot t)}$

4

A bacteria population starts at 700. It grows continuously at 6% growth per year. After 4 years it has increased to a certain population.

Solve for the final population given this scenario?

A $9 + P = P_0 - e^{(r \cdot t)}$	B $7 + P = P_0 - e^{(r \cdot t)}$
C $P = P_0 \cdot e^{(r \cdot t)}$	

5

A bacteria population starts at 200. It grows continuously at 8% growth per day. After 7 days it has increased to a certain population.

Solve for the final population given this scenario?

A $8 + P = P_0 - e^{(r \cdot t)}$	B $4 + P = P_0 \cdot e^{(\frac{r}{t})}$
C $6 + P = P_0 \cdot e^{(\frac{r}{t})}$	D $P = P_0 \cdot e^{(r \cdot t)}$

6

An app starts with 600 downloads. Its download count grows continually by 7% each month.After 3 months it has a larger number of downloads.

Solve for the final downloads given this scenario?

A $7 + A = A_0 \cdot e^{(\frac{r}{t})}$	B $8 + A = A_0 - e^{(r \cdot t)}$
C $A = A_0 \cdot e^{(r \cdot t)}$	

7

A savings account starts with $700. It grows continuously at 5% interest per month. After 8 months it has a certain amount of cash.

Solve for the final cash given this scenario?

A $0 + P = P_0 \cdot e^{(\frac{r}{t})}$	B $P = P_0 \cdot e^{(r \cdot t)}$
C $5 + P = P_0 \cdot e^{(\frac{r}{t})}$	

8

A credit card starts with $200 of debt. It grows continuously at 8% interest per month. After 5 months the debt has grown to a certain amount.

Solve for the final debt given this scenario?

A $6 + D = D_0 - e^{(r \cdot t)}$	B $D = D_0 \cdot e^{(r \cdot t)}$
C $7 + D = D_0 \cdot e^{(\frac{r}{t})}$	D $5 + D = D_0 \cdot e^{(\frac{r}{t})}$