Name ____________________

mobius

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

1

Solve for the final population given this model of a continuous growth of a bacteria population? $P = 700 \cdot e^{(0.06 \cdot 3)}$

A $P = P_0 \cdot e^{(r \cdot t)}$	B $7 + P = P_0 - e^{(r \cdot t)}$
C $5 + P = P_0 \cdot e^{(\frac{r}{t})}$	

2

Solve for the final population given this model of a continuous growth of a rabbit population? $P = 200 \cdot e^{(0.05 \cdot 8)}$

A $7 + P = P_0 - e^{(r \cdot t)}$	B $P = P_0 \cdot e^{(r \cdot t)}$
C $3 + P = P_0 \cdot e^{(\frac{r}{t})}$	D $4 + P = P_0 - e^{(r \cdot t)}$

3

Solve for the final population given this model of a continuous growth of an insect population? $P = 900 \cdot e^{(0.06 \cdot 2)}$

A $6 + P = P_0 - e^{(r \cdot t)}$	B $P = P_0 \cdot e^{(r \cdot t)}$
C $5 + P = P_0 - e^{(r \cdot t)}$	D $4 + P = P_0 \cdot e^{(\frac{r}{t})}$

4

Solve for the final views given this model of a continuous exponential growth of social media post views? $V = 200 \cdot e^{(0.08 \cdot 6)}$

A $6 + V = V_0 \cdot e^{(\frac{r}{t})}$	B $4 + V = V_0 \cdot e^{(\frac{r}{t})}$
C $0 + V = V_0 - e^{(r \cdot t)}$	D $V = V_0 \cdot e^{(r \cdot t)}$

5

Solve for the final population given this model of a continuous growth of an insect population? $P = 900 \cdot e^{(0.05 \cdot 3)}$

A $P = P_0 \cdot e^{(r \cdot t)}$	B $6 + P = P_0 - e^{(r \cdot t)}$
C $0 + P = P_0 \cdot e^{(\frac{r}{t})}$	D $7 + P = P_0 \cdot e^{(\frac{r}{t})}$

6

Solve for the final population given this model of a continuous growth of a bacteria population? $P = 700 \cdot e^{(0.06 \cdot 5)}$

A $7 + P = P_0 \cdot e^{(\frac{r}{t})}$	B $P = P_0 \cdot e^{(r \cdot t)}$
C $0 + P = P_0 \cdot e^{(\frac{r}{t})}$	D $8 + P = P_0 - e^{(r \cdot t)}$

7

Solve for the final debt given this model of a growth of debt on a credit card with continuous compounding? $D = 300 \cdot e^{(0.04 \cdot 9)}$

A $8 + D = D_0 \cdot e^{(\frac{r}{t})}$	B $3 + D = D_0 - e^{(r \cdot t)}$
C $D = D_0 \cdot e^{(r \cdot t)}$	

8

Solve for the final debt given this model of a growth of debt on a credit card with continuous compounding? $D = 900 \cdot e^{(0.08 \cdot 2)}$

A $D = D_0 \cdot e^{(r \cdot t)}$	B $3 + D = D_0 - e^{(r \cdot t)}$
C $9 + D = D_0 \cdot e^{(\frac{r}{t})}$	D $7 + D = D_0 - e^{(r \cdot t)}$