



Exponential Function Solving - Growth (Discrete) Equation to Starting Value

1 What is the value of the starting population given this model of a growth of a rabbit population (yearly breeding cycle)?

$$649 = P_0 \cdot (1 + 0.02)^{(4)}$$

A $P_0 = 400$

B $P_0 = 600$

C $P_0 = 700$

D $P_0 = 300$

2 What is the value of the starting debt given this model of a growth in credit card debt with monthly interest?

$$597 = D_0 \cdot (1 + 0.09)^{(8)}$$

A $D_0 = 500$

B $D_0 = 100$

C $D_0 = 400$

D $D_0 = 300$

3 What is the value of the starting cash given this model of a quarterly compounding growth of money in a savings account?

$$657 = P_0 \cdot (1 + 0.04)^{(7)}$$

A $P_0 = 500$

B $P_0 = 400$

C $P_0 = 800$

D $P_0 = 600$

4 What is the value of the starting debt given this model of a growth in credit card debt with yearly interest?

$$273 = D_0 \cdot (1 + 0.04)^{(8)}$$

A $D_0 = 500$

B $D_0 = 400$

C $D_0 = 200$

D $D_0 = 300$

5 What is the value of the starting population given this model of a growth of a rabbit population (yearly breeding cycle)?

$$634 = P_0 \cdot (1 + 0.08)^{(6)}$$

A $P_0 = 100$

B $P_0 = 300$

C $P_0 = 400$

D $P_0 = 500$

6 What is the value of the starting population given this model of a growth of a rabbit population (yearly breeding cycle)?

$$787 = P_0 \cdot (1 + 0.04)^{(3)}$$

A $P_0 = 500$

B $P_0 = 400$

C $P_0 = 700$

D $P_0 = 600$

7 What is the value of the starting population given this model of a growth of an insect population that breeds once per year?

$$1,266 = P_0 \cdot (1 + 0.05)^{(7)}$$

A $P_0 = 1000$

B $P_0 = 600$

C $P_0 = 900$

D $P_0 = 800$

8 What is the value of the starting debt given this model of a growth in credit card debt with yearly interest?

$$1,329 = D_0 \cdot (1 + 0.05)^{(8)}$$

A $D_0 = 700$

B $D_0 = 1000$

C $D_0 = 900$

D $D_0 = 800$