



Exponential Function Solving - Growth (Discrete) - Equation to Time

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

$$930 = 600 \cdot (1 + 0.05)^{(t)}$$

A $t = 11$ years

B $t = 9$ years

C $t = 7$ years

D $t = 10$ years

2 What is the value of the time given this model of a yearly compounding growth of money in a savings account?

$$844 = 600 \cdot (1 + 0.05)^{(t)}$$

A $t = 9$ years

B $t = 5$ years

C $t = 7$ years

D $t = 8$ years

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

$$1,394 = 700 \cdot (1 + 0.09)^{(t)}$$

A $t = 7$ years

B $t = 10$ years

C $t = 6$ years

D $t = 8$ years

4 What is the value of the time given this model of a yearly compounding growth of money in a savings account?

$$441 = 400 \cdot (1 + 0.02)^{(t)}$$

A $t = 4$ years

B $t = 3$ years

C $t = 6$ years

D $t = 5$ years

5 What is the value of the time given this model of a quarterly compounding growth of money in a savings account?

$$594 = 500 \cdot (1 + 0.09)^{(t)}$$

A $t = 4$ quarters

B $t = 3$ quarters

C $t = 1$ quarter

D $t = 2$ quarters

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

$$633 = 500 \cdot (1 + 0.03)^{(t)}$$

A $t = 8$ years

B $t = 7$ years

C $t = 9$ years

D $t = 6$ years

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

$$742 = 700 \cdot (1 + 0.02)^{(t)}$$

A $t = 3$ years

B $t = 2$ years

C $t = 4$ years

D $t = 5$ years

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

$$936 = 700 \cdot (1 + 0.06)^{(t)}$$

A $t = 5$ years

B $t = 4$ years

C $t = 6$ years

D $t = 3$ years