Name

Exponential Function Solving - Growth (Discrete) Equation to Rate

1 Solve for the rate given this model of a monthly compounding growth of money in a savings account?

$$999 = 500 \cdot (1 + r)^{(9)}$$

A $r = +(\frac{P}{P_0})^{\frac{1}{t}} - 1$	B $r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$
C $r = +(\frac{P}{P_0})^{\frac{1}{t}} + 1$	

2 Solve for the rate given this model of a growth of an insect population that breeds once per year?

$$699 = 600 \cdot (1 + r)^{(2)}$$

A $r = +(\frac{P}{P_0})^{\frac{1}{t}} + 1$	B $r = +(\frac{P}{P_0})^{\frac{1}{t}} - 1$
C $r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$	

3 Solve for the rate given this model of a growth of an insect population that breeds once per year?

$$463 = 400 \cdot (1 + r)^{(3)}$$

A $r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$	B $r = +(\frac{P}{P_0})^{\frac{1}{t}} - 1$

4 Solve for the rate given this model of a yearly compounding growth of money in a savings account?

$$686 = 600 \cdot (1 + r)^{(2)}$$

A $r = +(\frac{P}{P_0})^{\frac{1}{t}} + 1$	B $r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$
C $r = +(\frac{P}{P_0})^{\frac{1}{t}} - 1$	

5 Solve for the rate given this model of a growth of a rabbit population (yearly breeding cycle)?

$$378 = 300 \cdot (1 + r)^{(4)}$$

A $r = +(\frac{P}{P_0})^{\frac{1}{t}} + 1$	B $r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$
C $r = +(\frac{P}{P_0})^{\frac{1}{t}} - 1$	

6 Solve for the rate given this model of a growth of an insect population that breeds once per year?

$$337 = 300 \cdot (1 + r)^{(6)}$$

A $r = +(\frac{P}{P_0})^{\frac{1}{t}} + 1$	B $r = +(\frac{P}{P_0})^{\frac{1}{t}} - 1$

7 Solve for the rate given this model of a growth in credit card debt with monthly interest?

$$245 = 200 \cdot (1 + r)^{(3)}$$

A $r = +(\frac{D}{D_0})^{\frac{1}{t}} - 1$	B $r = +(\frac{D}{D_0})^{\frac{1}{t}} + 1$

8 Solve for the rate given this model of a quarterly compounding growth of money in a savings account?

$$476 = 300 \cdot (1 + r)^{(6)}$$

A $r = +(\frac{P}{P_0})^{\frac{1}{t}} - 1$	B $r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$
C $r = +(\frac{P}{P_0})^{\frac{1}{t}} + 1$	