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?

$$1,094 = 900 \cdot (1 + r)^{(5)}$$

A	$1 + r = +(\frac{P}{P_0})^{\frac{1}{7}} + 1$	B	$2 + r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$
C	$8 + r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$	D	$r = +(\frac{P}{P_0})^{\frac{1}{7}} - 1$

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

$$422 = 300 \cdot (1 + r)^{(7)}$$

A	$6 + r = +(\frac{P}{P_0})^{\frac{1}{7}} + 1$	B	$4 + r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$
C	$r = +(\frac{P}{P_0})^{\frac{1}{7}} - 1$	D	$1 + r = +(\frac{P}{P_0})^{\frac{1}{7}} + 1$

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

$$831 = 700 \cdot (1 + r)^{(2)}$$

A	$0 + r = +(\frac{P}{P_0})^{\frac{1}{7}} + 1$	B	$7 + r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$
C	$4 + r = +(\frac{P}{P_0})^{\frac{1}{7}} + 1$	D	$r = +(\frac{P}{P_0})^{\frac{1}{7}} - 1$

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

$$856 = 500 \cdot (1 + r)^{(7)}$$

A	$8 + r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$	B	$3 + r = +(\frac{P}{P_0})^{\frac{1}{7}} + 1$
C	$r = +(\frac{P}{P_0})^{\frac{1}{7}} - 1$	D	$6 + r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$

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

$$655 = 500 \cdot (1 + r)^{(4)}$$

A	$3 + r = +(\frac{D}{D_0})^{\frac{t}{2}} - 1$	B	$1 + r = +(\frac{D}{D_0})^{\frac{t}{2}} - 1$
C	$r = +(\frac{D}{D_0})^{\frac{1}{7}} - 1$	D	$6 + r = +(\frac{D}{D_0})^{\frac{1}{7}} + 1$

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

$$583 = 500 \cdot (1 + r)^{(2)}$$

A	$4 + r = +(\frac{D}{D_0})^{\frac{1}{7}} + 1$	B	$r = +(\frac{D}{D_0})^{\frac{1}{7}} - 1$
C	$4 + r = +(\frac{D}{D_0})^{\frac{t}{2}} - 1$	D	$3 + r = +(\frac{D}{D_0})^{\frac{1}{7}} + 1$

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

$$1,353 = 900 \cdot (1 + r)^{(7)}$$

A	$2 + r = +(\frac{P}{P_0})^{\frac{1}{7}} + 1$	B	$0 + r = +(\frac{P}{P_0})^{\frac{1}{7}} + 1$
C	$5 + r = +(\frac{P}{P_0})^{\frac{1}{7}} + 1$	D	$r = +(\frac{P}{P_0})^{\frac{1}{7}} - 1$

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

$$356 = 300 \cdot (1 + r)^{(2)}$$

A	$7 + r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$	B	$9 + r = +(\frac{P}{P_0})^{\frac{1}{7}} + 1$
C	$r = +(\frac{P}{P_0})^{\frac{1}{7}} - 1$	D	$2 + r = +(\frac{P}{P_0})^{\frac{t}{2}} - 1$