Name _____

1 Solve for the rate given this model of a balance of a charitable endowment (weekly disbursements)?

$$104 = 800 \cdot (1 - r)^{\left(\frac{28}{7}\right)}$$

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

2 Solve for the rate given this model of a balance of a charitable endowment (monthly disbursements)?

$$619 = 700 \cdot (1 - r)^{(3 \cdot 12)}$$

A	$r = -(\frac{P}{P_0})^{\frac{1}{12}} + 1$	B	$r = -(\frac{P}{P_0})^{\frac{1}{t \cdot 12}} - 1$
C	$r = -(\frac{P}{P_0})^{\frac{t \cdot 12}{2}} - 1$		

3 Solve for the rate given this model of a balance of a charitable endowment (yearly disbursements)?

$$47 = 900 \cdot (1 - r)^{\left(\frac{72}{12}\right)}$$

A	$r = -\left(\frac{P}{P_0}\right)^{\frac{1}{\frac{t}{12}}} - 1$	B	$r = -\left(\frac{P}{P_0}\right)^{\frac{1}{t \cdot 12}} + 1$

4 Solve for the rate given this model of a decline of a toxin concentration (hourly dialysis)?

$$416 = 500 \cdot (1 - r)^{(6 \cdot 24)}$$

A	$r = -\left(\frac{C}{C_0}\right)^{\frac{t \cdot 24}{2}} - 1$	B	$r = -\left(\frac{C}{C_0}\right)^{\frac{1}{t \cdot 24}} - 1$

5 Solve for the rate given this model of a decline of a toxin concentration (weekly dialysis)?

$$22 = 300 \cdot (1 - r)^{\left(\frac{63}{7}\right)}$$

A	$r = -(\frac{C}{C_0})^{\frac{1}{t \cdot 7}} + 1$	B	$r = -(\frac{C}{C_0})^{\frac{1}{7}} - 1$
C	$r = -(\frac{C}{C_0})^{\frac{t}{2}} - 1$		

6 Solve for the rate given this model of a balance of a charitable endowment (yearly disbursements)?

$$6 = 200 \cdot (1 - r)^{\left(\frac{84}{12}\right)}$$

A	$r = -(\frac{P}{P_0})^{\frac{t}{12}} - 1$	B	$r = -(\frac{P}{P_0})^{\frac{1}{12}} - 1$
C	$r = -(\frac{P}{P_0})^{\frac{1}{t \cdot 12}} + 1$		

7 Solve for the rate given this model of a balance of a charitable endowment (monthly disbursements)?

$$176 = 200 \cdot (1 - r)^{(3 \cdot 12)}$$

A	$r = -(\frac{P}{P_0})^{\frac{1}{t \cdot 12}} - 1$	B	$r = -(\frac{P}{P_0})^{\frac{t \cdot 12}{2}} - 1$
C	$r = -(\frac{P}{P_0})^{\frac{1}{12}} + 1$		

8 Solve for the rate given this model of a balance of a charitable endowment (weekly disbursements)?

$$111 = 300 \cdot (1 - r)^{\left(\frac{49}{7}\right)}$$

A	$r = -\left(\frac{P}{P_0}\right)^{\frac{1}{\frac{t}{7}}} - 1$	B	$r = -\left(\frac{P}{P_0}\right)^{\frac{1}{t \cdot 7}} + 1$