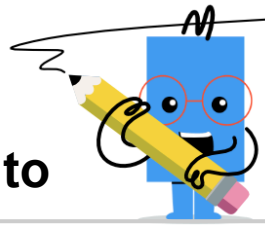
Name

Exponential Function Growth (Continuous) - Equation and Scenario to Specific Value



1 What is the rate in this equation for a continuous growth of a bacteria population?

$$758 = 700 \cdot e^{(0.04 \cdot 2)}$$

A	$r = 700\%$	B	$r = 758\%$
C	$r = 4\%$		

2 What is the final debt in this equation for a growth of debt on a credit card with continuous compounding?

$$1,255 = 800 \cdot e^{(0.09 \cdot 5)}$$

A	$D = 5$	B	$D = 1,255$
C	$D = 9$	D	$D = 800$

3 What is the final population in this equation for a continuous growth of a rabbit population?

$$1,438 = 700 \cdot e^{(0.09 \cdot 8)}$$

A	$P = 1,438$	B	$P = 700$
C	$P = 8$	D	$P = 9$

4 What is the rate in this equation for a continuously compounding growth of a share price?

$$225 = 200 \cdot e^{(0.03 \cdot 4)}$$

A	$r = 200\%$	B	$r = 3\%$

5 What is the time in this equation for a continuous exponential growth of social media post views?

$$1,343 = 900 \cdot e^{(0.08 \cdot 5)}$$

A	$t = 900$	B	$t = 5$
C	$t = 1342$		

6 What is the time in this equation for a growth of debt on a credit card with continuous compounding?

$$254 = 200 \cdot e^{(0.06 \cdot 4)}$$

A	$t = 4$	B	$t = 254$
C	$t = 200$		

7 What is the final population in this equation for a continuous growth of a rabbit population?

$$1,056 = 900 \cdot e^{(0.02 \cdot 8)}$$

A	$P = 900$	B	$P = 8$
C	$P = 1,056$	D	$P = 2$

8 What is the time in this equation for a continuously compounding growth of money in a savings account?

$$902 = 800 \cdot e^{(0.03 \cdot 4)}$$

A	$t = 800$	B	$t = 4$
C	$t = 901$		