Name

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

1 What is the rate in this equation for a a continuously declining bacteria population?

$$263 = 400 \cdot e^{(-0.07 \cdot 6)}$$

A	$r = 400\%$	B	$r = 7\%$
C	$r = 262\%$		

2 What is the time in this equation for a a continuously declining bacteria population?

$$633 = 700 \cdot e^{(-0.02 \cdot 5)}$$

A $t = 5$	B $t = 633$	C $t = 700$

3 What is the time in this equation for a continuous decline of a whale population?

$$753 = 800 \cdot e^{(-0.03 \cdot 2)}$$

A $t = 753$	B $t = 2$	C $t = 800$

4 What is the rate in this equation for a continuous reduction of a toxin concentration?

$$708 = 900 \cdot e^{(-0.04 \cdot 6)}$$

A	$r = 900\%$	B	$r = 707\%$
C	$r = 4\%$		

5 What is the final concentration in this equation for a continuous reduction of a toxin concentration?

$$277 = 300 \cdot e^{(-0.04 \cdot 2)}$$

A	$C = 300$	B	$C = 277$
C	$C = 4$		

6 What is the starting concentration in this equation for a continuous reduction of a toxin concentration?

$$256 = 300 \cdot e^{(-0.02 \cdot 8)}$$

A	$C_0 = 255$	B	$C_0 = 300$
C	$C_0 = 8$		

7 What is the starting population in this equation for a continuous decline of a whale population?

$$466 = 800 \cdot e^{(-0.09 \cdot 6)}$$

A	$P_0 = 6$	B	$P_0 = 800$
C	$P_0 = 466$		

8 What is the rate in this equation for a a continuously declining bacteria population?

$$305 = 400 \cdot e^{(-0.09 \cdot 3)}$$

A	$r = 305\%$	B	$r = 9\%$
C	$r = 400\%$		