Exponential Function Growth (Continuous) - Scenario to Equation

1

An app starts with 800 downloads. Its download count grows continually by 5% each week.After 9 weeks it has 1,254 downloads.

Which equation describes this scenario?

A $1,254 = 800 \cdot e^{(0.05 \cdot 9)}$	B $1,254 = 500 \cdot e^{(0.08 \cdot 9)}$
C $1,254 = 900 \cdot e^{(0.05 \cdot 8)}$	

2

A bacteria population starts at 200. It grows continuously at 3% growth per month. After 7 months it has increased to a population of 246.

Which equation describes this scenario?

A $246 = 200 \cdot e^{(0.07 \cdot 3)}$	B $246 = 700 \cdot e^{(0.03 \cdot 2)}$
C $246 = 200 \cdot e^{(0.03 \cdot 7)}$	D $246 = 300 \cdot e^{(0.02 \cdot 7)}$

3

A bacteria population starts at 200. It grows continuously at 7% growth per day. After 5 days it has increased to a population of 283.

Which equation describes this scenario?

A $283 = 700 \cdot e^{(0.02 \cdot 5)}$	B $283 = 200 \cdot e^{(0.07 \cdot 5)}$
C $283 = 500 \cdot e^{(0.07 \cdot 2)}$	

4

An insect population starts at 300. It grows continuously at 7% growth per year. After 4 years it has increased to a population of 396.

Which equation describes this scenario?

A $396 = 700 \cdot e^{(0.03 \cdot 4)}$	B $396 = 300 \cdot e^{(0.04 \cdot 7)}$
C $396 = 400 \cdot e^{(0.07 \cdot 3)}$	D $396 = 300 \cdot e^{(0.07 \cdot 4)}$

5

A social media post starts with 400 views. Its view count grows continually by 7% each year.After 6 years it has 608 views.

Which equation describes this scenario?

A $608 = 600 \cdot e^{(0.07 \cdot 4)}$	B $608 = 400 \cdot e^{(0.07 \cdot 6)}$
C $608 = 400 \cdot e^{(0.06 \cdot 7)}$	

6

A bacteria population starts at 400. It grows continuously at 2% growth per month. After 3 months it has increased to a population of 424.

Which equation describes this scenario?

A $424 = 400 \cdot e^{(0.02 \cdot 3)}$	B $424 = 300 \cdot e^{(0.02 \cdot 4)}$
C $424 = 400 \cdot e^{(0.03 \cdot 2)}$	

7

A savings account starts with $900. It grows continuously at 8% interest per year. After 4 years it has $1,239.

Which equation describes this scenario?

A $1,239 = 900 \cdot e^{(0.08 \cdot 4)}$	B $1,239 = 800 \cdot e^{(0.09 \cdot 4)}$
C $1,239 = 400 \cdot e^{(0.08 \cdot 9)}$	

8

An app starts with 200 downloads. Its download count grows continually by 8% each week.After 7 weeks it has 350 downloads.

Which equation describes this scenario?

A $350 = 700 \cdot e^{(0.08 \cdot 2)}$	B $350 = 800 \cdot e^{(0.02 \cdot 7)}$
C $350 = 200 \cdot e^{(0.08 \cdot 7)}$	