



Exponential Function Solving - Growth (Continuous) - Scenario to Time

1

What is the value of the time given this scenario?

A savings account starts with \$200. It grows continuously at 4% interest per month. After a certain number of months it has \$244.

$$t^A = 5 \text{ months} \quad t^B = 4 \text{ months}$$

$$t^C = 3 \text{ months} \quad t^D = 7 \text{ months}$$

2

What is the value of the time given this scenario?

A company's share price starts at \$900. It grows continuously at 2% growth per month. After a certain number of months it has a share price of \$955.

$$t^A = 4 \text{ months} \quad t^B = 2 \text{ months}$$

$$t^C = 3 \text{ months} \quad t^D = 5 \text{ months}$$

3

What is the value of the time given this scenario?

A credit card starts with \$300 of debt. It grows continuously at 7% interest per month. After a certain number of months the debt has grown to \$456.

$$t^A = 5 \text{ months} \quad t^B = 8 \text{ months}$$

$$t^C = 4 \text{ months} \quad t^D = 6 \text{ months}$$

4

What is the value of the time given this scenario?

A rabbit population starts at 800. It grows continuously at 9% growth per quarter. After a certain number of quarters it has increased to a population of 957 rabbits.

$$t^A = 4 \text{ quarters} \quad t^B = 3 \text{ quarters}$$

$$t^C = 2 \text{ quarters} \quad t^D = 1 \text{ quarter}$$

5

What is the value of the time given this scenario?

An app starts with 900 downloads. Its download count grows continually by 5% each day. After a certain number of days it has 1,342 downloads.

$$t^A = 6 \text{ days} \quad t^B = 9 \text{ days}$$

$$t^C = 8 \text{ days} \quad t^D = 7 \text{ days}$$

6

What is the value of the time given this scenario?

A social media post starts with 500 views. Its view count grows continually by 6% each month. After a certain number of months it has 563 views.

$$t^A = 2 \text{ months} \quad t^B = 3 \text{ months}$$

$$t^C = 4 \text{ months} \quad t^D = 1 \text{ month}$$

7

What is the value of the time given this scenario?

A company's share price starts at \$200. It grows continuously at 6% growth per year. After a certain number of years it has a share price of \$239.

$$t^A = 2 \text{ years} \quad t^B = 1 \text{ year}$$

$$t^C = 4 \text{ years} \quad t^D = 3 \text{ years}$$

8

What is the value of the time given this scenario?

An insect population starts at 400. It grows continuously at 7% growth per month. After a certain number of months it has increased to a population of 608.

$$t^A = 4 \text{ months} \quad t^B = 8 \text{ months}$$

$$t^C = 6 \text{ months} \quad t^D = 5 \text{ months}$$