

Continuous Interest

(for logarithms)

1. If you invest \$4000 in an account that pays 6% continuous interest, how long will it take for the balance to reach \$6000?

$$A = Pe^{rt}$$

2. If you invest \$4000 in an account that pays 6% continuous interest, how long will it take for the balance to reach \$6000?

Continuous Interest

3. If you invest \$4000 in an account that pays 6% continuous interest, how long will it take for the balance to reach \$6000?

$$A = P \left(1 + \frac{r}{n}\right)^{nt}$$

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Quote

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(Round to 2 decimal places.)

$$\begin{aligned}P &= \$4,000 \\A &= \$6,000 \\r &= 6\% = 0.06 \\t &= ?\end{aligned}$$

$$\frac{6000}{4000} = \frac{4000}{4000} e^{0.06t}$$

$$A = Pe^{rt}$$

$$\ln x^y = y \ln x$$

$$\ln e = 1$$