Example 6.

Calculate the compound interest for a $1000 investment under the following conditions:

Interest rate: 2.5%

Investment Period: 5 years

Compounding: Continuous

Solution.

For continuous compounding use this formula. *P* is the principal, *r* is the interest rate, and *t* is the investment period.

P = $1000

r = 0.025

t = 5

$$A = P \cdot e^{rt}$$

$$A = 1000 \cdot e^{0.025 \cdot 5}$$

$$= 1133.15$$