

**Exercise 301**

The amount  $A$  of a \$100,000 investment paying continuously and compounded for  $t$  years is given by  $A(t) = 100,000 \cdot e^{0.055t}$ . Find the amount  $A$  accumulated in 5 years.

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**Solution**

Plug in  $t = 5$  and use a calculator.

$$A(5) = 100,000 \cdot e^{0.055(5)} \approx 131,653.07$$

The amount accumulated in 5 years is about \$131,653.07.