Financial Mathematics

Monthly Compounding

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Monthly Compounding

$1,000 is deposited into a savings account that pays 3interest with monthly compounding.

- What is the accumulated amount after two and a half years?
- What is the amount of interest earned over this period?

Monthly Compounding

$$A(t) = A(0) \times \left(1 + \frac{r}{m}\right)^{mt}$$

The investment interval is 30 months. Thus the accumulated amount is

$$A(t) = 1000 \times \left(1 + \frac{0.03}{12}\right)^{30}$$

$$= \$1{,}077.78$$