8.3 Simple Interest

# Objective 1: Calculate Simple Interest

**Interest** is money paid for lending, investing, or borrowing money. The amount of money deposited or borrowed is called the **principal**. The amount of interest depends on the principal, the **interest rate** (given as a percent), and the length of time for which the money is deposited or borrowed.

**CALCULATING SIMPLE INTEREST: **

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** The interest rate, *r*, is almost always expressed as a percent and MUST be converted to a decimal for use in formulas. Be certain that all other units are consistent as well. If the interest rate is % per year, then *t* must also be in years.**

# Objective 2: Use the future value formula

When a loan is repaid, the interest is added to the original principal to find the total amount due. The amount due is called the **future value** of the loan. The principal is also known as the loan’s **present value**.

**CALCULATING FUTURE VALUE FOR SIMPLE INTEREST**

The future value, *A*, of *P* dollars at simple interest rate *r*, for *t* years is given by

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This is the same as saying . The future value is the principal plus interest earned.