**Compound Interest**

**Problem 1.**

Suppose that $5,000 is invested for 3 years at 8%.

1. Find the amount of simple interest.
2. Find the compound interest if interest is calculated once per year.

**Problem 2.**

Find the interest on $7,000 compounded quarterly at 3% for 5 years.

**Problem 3.** Find the interest on $11,000 compounded daily at 5% for 6 years. Assume a 365-day year.

**Problem 4.**

Suppose that $5,000 is invested for 1 year at 4% compounded semiannually.

1. What is the interest earned after one year?
2. What percent simple interest would be needed on a one year investment to have the same future value?

**Problem 5.** Find the effective interest rate when the stated rate is 4% and the interest is compounded semiannually.

**Problem 6.** Which savings account is a better investment: 6.2% compounded daily or 6.25% compounded semiannually?