# CHAPTER 1

## SECTION 1.1

1.1.1 Balances are $10,000(1.04) = 10,400$ after one year,

$10,000(1.04)^2 = 10,816$ after 2 years, and

$10,000(1.04)^3 = 11,248.64$ after 3 years.

Interest amounts are 400 at the end of the 1st year, 416 at the end of the 2nd year, and 432.64 at the end of the 3rd year.

1.1.2 (a) $2500[1 + (.04)(10)] = 3500$

(b) $2500(1.04)^{10} = 3700.61$

(c) $2500(1.02)^{20} = 3714.87$

(d) $2500(1.01)^{40} = 3722.16$

1.1.3 Balance after 12 months is $10,000(1.01)^3(1.0075)^9 = 11,019.70$.
Average monthly interest rate is $j$, where

$10,000(1+j)^{12} = 11,019.70$.

Solving for $j$ results in .0081244.