MA 110 Compound Interest
Section 3.2

For problems involving ***compound interest***, you will need to use the

Compound Interest Formula $A = P(1+i)^n$

When using this formula, it is ***essential*** to use correct values for i and n. These should be determined first.

$$i = \frac{stated\ \ annual\ \ rate}{\#\ of\ \ compounding\ \ periods\ in\ one\ \ year}$$

$$n = (\#\ of\ \ years)\cdot(\#\ of\ \ compounding\ \ periods\ in\ one\ \ year)$$

Also keep in mind that no rounding should be done until the end of the problem. Final answers involving money should be rounded to two decimal places.

1. Suppose you borrow $6500 at 7% interest compounded quarterly for 3 years.

(a) Determine the values of i and n.

i = n =

(b) Determine the future value of the loan.

(c) How much interest was paid over the term of the loan?

2. An investment is made in a certificate of deposit paying 6.3% compounded monthly. After 4 years, the investment is worth $10928.86.

(a) Determine the values of i and n.

i = n =

(b) How much money was originally invested?

(c) How much interest was earned over the four-year period?