Name: _____

Chapter 4 – Section 4.4 Applications to Compound Interest

TICKET-IN-THE-DOOR

In order to be prepared for class you must watch the module and complete the following activity. This is due first thing when you get to class.

Check your understanding:

1. Write a **formula** that gives the value of an investment, which is initially worth $124,000 and loses value at a rate of 2.8% per year.

2. Kathleen opens a savings account with $1500. The account earns 3.5% annual interest compounded monthly. How much will be in the account after 12 years?

3. For an account paying 5% annual interest, compounded monthly, what is the
   a) Nominal rate

   b) Effective rate

4. Suppose Taylor wins $10,000 in a lottery. If she invests half in a CD (Certificate of Deposit) account earning 4.2% annual interest compounded quarterly and the rest in a savings account earning 3.8% annual interest compounded monthly. How much money does she have after 10 years?

5. You place $10,000 in an account. You hope to have $20,000 in the account after 15 years. What **effective annual yield** is needed to accomplish this? Give your answer correct to four decimal places.