



3. Repeat Example 3 from section 3.4, but suppose the bottle of pop cools from  $37^\circ$  to  $57^\circ$  in half an hour (still in a  $72^\circ$  room).

4. Read Example 4 in section 3.4.

a) Why do banks typically pay interest on savings accounts monthly or quarterly, but charge interest on credit card balances daily?

b) What is the ending balance if \$5000 is invested at 4% interest for 3 years, with the interest compounded quarterly?

c) What is the ending balance if \$5000 is invested at 4% interest for 3 years, with the interest compounded continuously?