

## B-24.06

Consider an investment scenario involving a level stream of three annual payments of \$1,000 each (i.e., an annuity). The first payment occurs at the beginning of the first year, and the subsequent payments occur at the beginning of each of the next two years. The invested balance will accrue interest at 8% per year, compounded annually.

- (a) Calculate the accumulated balance at the end of the third year. Use the approach illustrated in the text to demonstrate the intrinsic calculations, and then verify your answer by reference to the appropriate future value table. If you have a "business" calculator, additionally verify your calculations using the future value functions included with your calculator.
- (b) Show how your answer to part (a) would differ if you change the assumption to "end of year" payments.
- (c) Using the future value tables, calculate how your answer to part (a) would differ if you change the assumption to six semiannual (beginning of period) payments, with the 8% annual rate now being assumed to compound semiannually.