The answer to the question is highlighted in red. Explanations are highlighted in green.

13. Assume you just won the Florida lotto and must make a choice between taking a lump-sum (single) payment equal to $6 million today or 30 annual payments equal to $400,000. If you take the annual payments, the first payment will be given to you today. Which alternative should you select if your opportunity cost is 5.5 percent compounded annually?
   
a. The $6 million lump-sum payment is better, because it is always better to receive money today than to wait until some future period regardless of the amounts involved.

   b. The $6 million lump-sum payment is better, because it is greater than the present value of the $400,000 annuity, which equals $5,813,498.

   c. The $400,000 annuity should be selected because its present value, which equals $6,133,240, is greater than the $6 million lump-sum amount that would be received today.

   d. The $6 million lump-sum payment should be selected because it can be invested at 5.5 percent, and thus will grow to an amount in the future that is greater than the present value of the $400,000 annuity.

   e. The two choices are identical, so you should flip a coin to make the decision.

Solution:

\[
PVA_{\text{DUE}} = 400,000 \left[ \frac{1 - \frac{1}{(1.055)^{30}}}{0.055} \right] \times (1.055) = 400,000(15.33310) = 6,133,240
\]

Financial Calculator Solution: N = 30, I = 5.5, PMT = 400,000, FV = 0, PV(DUE) = 6,133,240

RETURN TO THE SAMPLE QUESTIONS