

Updates and Errata for ACTEX Study Manual
Exam FM/2, Spring 2010 Edition
April 29, 2010

Page M1-29 Problem 1.

There has been some confusion about the solution to this problem. In solving the equation we assumed that Bruce gets one quarter's worth of interest for the 29th quarter of his 7.25 years of investment. This gives an equation for δ :

$$100 \times 1.02^{14.5} = 100e^{7.25\delta} ;$$

The solution is $\delta = .0396$. This matches the official SOA solution, so the writers clearly intended that this assumption be made.

If you assume that "convertible semiannually" means that interest is only paid semiannually, then you could assume that Bruce forfeits the interest on his final quarter. (This is what actually happens if you cash out a CD early. You forfeit some interest.) Then the equation for δ becomes:

$$100 \times 1.02^{14} = 100e^{7.25\delta} ;$$

The solution then changes to .0382, but this is not one of the multiple choices -so you can rule out this assumption.

One of the official texts by Kellison discusses the meanings of "compounded", "payable" and "convertible". After discussing the first two terms, Kellison says "The term 'convertible' does not seem to possess either connotation. The reader is advised not to rely on such connotations when encountering these terms, but to ascertain exactly how the interest is computed and paid." In other words, convertible is ambiguous and you need to clarify how it is used in each situation. In my work in finance, there were legal document to review to clarify the intent. In the exam world the clarification is simpler -does your assumption match a multiple choice answer.

Page M3-21, Problem number 9

Change "...offered at a rate of 6.6%." to "...offered at a rate of 6.6% convertible monthly."

Page M3-29, Solution to Problem 4

Replace

$$1000 \left[\frac{.98^{40}}{1.0075} + \frac{.98^{41}}{1.0075^2} + \dots + \frac{.98^{59}}{1.0075^{40}} \right]$$

With

$$1000 \left[\frac{.98^{40}}{1.0075} + \frac{.98^{41}}{1.0075^2} + \dots + \frac{.98^{59}}{1.0075^{20}} \right]$$

Page M12-26. Top formula for Discrete dividends.

Each i in the exponent should be a t_i . The formula is displayed correctly on page M12-7.

Page M12-22.

In the formula under the table, the final term should be $+\Delta S(2000)$, with $+$ replacing $-$.

Page PE-4-8.

Question 34 should read: Which of the following could have a **profit** graph of the form given below?

Page PE4-9, Solution to Question 1.

Replace

$$“i^{(6)} = (e^{\delta/6} - 1) / 6 = 0.0805 \text{ and } d^{(4)} = (1 - e^{-\delta/4}) / 4 = 0.0792.”$$

With

$$“i^{(6)} = (e^{\delta/6} - 1) \times 6 = 0.0805 \text{ and } d^{(4)} = (1 - e^{-\delta/4}) \times 4 = 0.0792.”$$

Page PE7-20: Solution to Problem 24.

- In line 1, 300 should be 30 and 150,000 should be 15,000.
- In line 7, 300 should be 30.

Page PE9-5: Problem 13

A) should be 37,277.

Page PE9-16: Solution to Problem 13

The last 4 lines prior to the answer should read “plus the last 360 payments and the refinance cost minus the original loan amount.

$$1,289.42(48) + 1,002.84(360) + 4,000 - 204,000 = 222,914.56$$

Daniel saved $260,191.20 - 222,914.56 = 37,276.64$ in interest.”