

**Updates and Errata: ACTEX Study Manual for SOA Exam FM, Spring 2018 Edition
as of February 22, 2018**

Please note the following errors in the Spring 2018 Edition of the manual.
In each item, the change is shown in **red**.

Page M7-18.

A minus sign was omitted in Formula (7.36). The formula should be:

$$(7.36) \quad D_{\text{mod}}(i^{(m)}) = \frac{-P'(i^{(m)})}{P(i^{(m)})} = \frac{D_{\text{mac}}(i^{(m)})}{1 + \frac{i^{(m)}}{m}}$$

A minus sign was also omitted in the 7th line of the paragraph below Formula (7.36).

The fraction shown in that line should be: $\frac{-P'(i^{(m)})}{P(i^{(m)})}$

Page M7-47, solution to Problem 4.

The first formula in the solution to part (a) should read as follows:

$$P(i) \approx P(i_0) \cdot \left(\frac{1+i_0}{1+i}\right)^{D_{\text{mac}}(i_0)} = 940.29 \cdot \left(\frac{1.07}{1.071}\right)^{6.5317} = 934.57$$

Page PE1-9, solution to Problem 3.

The first equation should read as follows:

$$K = 475 + 475v = 570v^2 + 570v^3$$

Page PE5-11, solution to Problem 9.

The solution shown is correct, and the resulting answer is 0.1293 (as shown).
However, the answer choice should be **B**, not **D**.

Page PE8-9, Problem 33.

In the second paragraph, delete the comma and the words that follow it.
The paragraph should read as follows:

The account earns an annual effective interest rate of 7%.

Page PE11-7, Problem 25.

The answer choices should be as follows:

- A) 5.24% B) 5.61% C) 5.73% D) 5.88% E) 6.04%

Page PE11-25, solution to Problem 25.

The two formulas for R and the correct answer choice should be as follows:

$$\begin{aligned} R &= \frac{2 \cdot f_{[0,1]}^* \cdot P_1 + 3 \cdot f_{[1,2]}^* \cdot P_2 + 4 \cdot f_{[2,3]}^* \cdot P_3}{2 \cdot P_1 + 3 \cdot P_2 + 4 \cdot P_3} \\ &= \frac{2 \cdot 0.044005 \cdot 0.95785 + 3 \cdot 0.052016 \cdot 0.91049 + 4 \cdot 0.066098 \cdot 0.85404}{2 \cdot 0.95785 + 3 \cdot 0.91049 + 4 \cdot 0.85404} \\ &= 0.056079 \end{aligned}$$

$$\begin{aligned} R &= \frac{\sum_{k=1}^n (Q_{t_k} \cdot (P_{t_{k-1}} - P_{t_k}))}{\sum_{k=1}^n (Q_{t_k} \cdot P_{t_k})} \\ &= \frac{2 \cdot (1 - 0.95785) + 3 \cdot (0.95785 - 0.91049) + 4 \cdot (0.91049 - 0.85404)}{2 \cdot 0.95785 + 3 \cdot 0.91049 + 4 \cdot 0.85404} \\ &= 0.056079 \end{aligned}$$

Answer: B