Introduction to Financial Mathematics
Math 30610 Homework 11

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due on Gradescope

Please choose 8 of the following exercises. You will only be graded on 8. Unless otherwise specified, all exercises are from the textbook. You are welcome to use any calculator, spreadsheet or programming language, as long as you explain clearly and completely your solution.

1. 4.2.3

2. 4.2.4

3. 4.3.2

4. 4.3.3

5. 4.3.4

6. 5.1.5 (a) and (c)

7. 5.1.9

8. 5.1.10 (b)

9. 5.2.3

10. 5.2.6

11. Coca Cola has been paying equal quarterly dividends, which change from year to year. The dividend paid on 11/30/2021 was 0.42. Ignoring a change in pattern due to Covid, quarterly dividend payments have been increasing by 0.02 every year, and assume this is the pattern for all future dividend payments. The Coca Cola stock price on 11/30/2021 was 52.45. Compute the constant effective annual interest implied by the Dividend Discount Model. (Careful, this is not the DDM applied to geometrically increasing dividends, as in chapter 2, but the general DDM which posits that stock price equals the present value of all future dividends.) (6%)