

Chapter 7 Homework
Math 373
Spring 2016

1. Williams Company issues preferred stock. The preferred stock pays quarterly dividends of 8.

Kelly purchases the preferred stock to yield 12% compounded quarterly. The next dividend will be paid in 3 months.

Using the dividend discount method, calculate the price of the stock.

2. Sowinski & Thomas Inc. sell a preferred stock which pays quarterly dividends of 10. The next dividend on the stock is payable in 2 months.

Using the dividend discount method, determine the price that Oscar should pay to purchase the stock to yield an annual effective rate of 10%.

3. The common stock of Liu Corporation paid a dividend of 2.00 earlier today. The stock pays quarterly dividends and it is expected that dividends will increase each payment into the future. It is expected that each dividend will be 102% of the prior dividend.

Using the dividend discount method, calculate the price of the stock to yield a rate of 12% compounded quarterly.

4. The common stock of Gensel LTD pays dividends quarterly. The next dividend will be paid in one month and is expected to be 3.00. Each dividend thereafter is expected to be 0.25 greater than the prior dividend. In other words, the next dividend in one month will be 3.00. The dividend in four months will be 3.25. The dividend in seven months will be 3.50, etc.

Using the dividend discount method and a yield of 10% convertible quarterly, calculate the price off Gensel stock.

5. The Chan Company issued common stock. The dividends in the first year are expected to be 0.10 per quarter with the next dividend paid in three months. The dividends during the second year are expected to be 0.20 per quarter. The dividends during the third year are expected to be 0.30 per quarter. The dividends are expected to continue to increase in this pattern forever.

Using the dividend discount method and a yield rate of 8% compounded quarterly, calculate the price of Chan Company stock.

6. Clair purchases Knable Kompany stock for 65. Knable stock pays quarterly dividends of 2.50 with the next dividend payable later today. Future dividends are expected to remain at 2.50.

Calculate that annual effective yield rate the Clair expects on Knable stock.

7. Jordan can purchase the stock of Murphy Manufacturing for X per share. As an alternative, he can purchase the stock of Smith Corporation for X per share.

Both stocks are priced using the dividend discount method with an annual interest rate of 20% compounded quarterly. Both stocks will pay their next dividend in 3 months.

Murphy Manufacturing pays a quarterly dividend of 8 per quarter.

Smith Corporation pays a quarterly dividend. The next dividend is expected to be D . Each future dividend is expected to be 1% greater than the previous dividend.

Calculate D .

8. A stock pays annual dividends. The next dividend will be paid in 6 months and will be 6.5. The next nine dividends thereafter will be each be 5% greater than the previous dividend. Following these first 10 dividends, future dividends are expected to remain at the level of the 10th dividend.

Calculate the theoretical price of this stock using the dividend discount method using an annual effective interest rate of 10%.

Answers

1. 266.67
2. 418.01
3. 204.00
4. 528.63
5. 65.66
6. 16.986%
7. 6.40
8. 91.49