

Dividend Growth Model - Practice Questions

- (1) Find the price of a stock (P_0) if the dividend just paid (D_0) = \$1.50; the growth rate of dividends, g , is 10%; and the cost of equity (R_E) = 12%.
- (2) Find the price of a stock (P_0) if the dividend just paid (D_0) = \$2.50; the growth rate of dividends is 5%; and the cost of equity (R_E) = 20%.
- (3) What is the value of stock in a company that just paid out \$1.50 per share in dividends and expects these dividends to grow at a rate of 6% forever, if investors require a 13% return?
- (4) If the price of a stock (P_0) is \$40; the dividend paid (D_0) = \$4; the cost of equity (R_E) = 15%, find g .
- (5) If P_0 is \$20, D_0 = \$2.20; and the growth rate in dividends is 12%. Find R_E .
- (6) AOL's dividends grow at a rate of 25% for the first 4 years, and then at a rate of 5% thereafter. If D_0 = \$15; and R_E = 12%; find the price of the stock.
- (7) AOL's dividends grow at a rate of 40% for the first 6 years, and then at a rate of 12%. If D_0 = \$25; and R_E = 20%; find the price of the stock.
- (8) AOL's dividends grow at a rate of 30% for the first 5 years, and then at a rate of 10%. If D_0 = \$20; and R_E = 20%; find the price of the stock at the end of the 3rd year (right after the 3rd div. has been paid).
- (9) A stock is currently selling for \$25. D_0 = \$2 and the dividends will grow at a constant rate of 10%. If R_E = 20% should you buy the stock for the price at which it is selling?
- (10) You plan to buy Merck stock and hold it for 2 years. You know that the stock will not pay dividends at the end of Year 1; but will pay a dividend of \$2.25 at the end of year 2. In addition, you expect to sell the stock for \$65 at the end of the 2nd year. If R_E = 16%, what is the price which you should pay for this stock?
- (11) You plan to buy Merck stock and hold it for 3 years. You know that the stock will not pay dividends at the end of Year 1; but will start paying a dividend of \$2.25 at the end of year 2 that will grow at a rate of 5% indefinitely. In addition, you expect to sell the stock for the present value of the remaining dividends at the end of the 3rd year. If R_E = 10%, what is the price which you should pay for this stock today?
- (12) What is the value of stock in a company that just paid out \$1.00 per share in dividends and expects these dividends to grow at a rate of 15% over the next 5 years, followed by 6% thereafter, if investors require a 12.5% return?

Answers:

1. 82.50
2. 17.50
3. 22.71
4. 4.545%
5. 24.32%
6. 428.63
7. 1148.85
8. *456.23 today, so \$666.42 at the end of the 3rd year.*
9. *No, 22*
10. *49.98*
11. *40.90*
12. *23.55*