

Name ID

Practice 2

Stock Valuation and Mortgage loan

1) You buy a house for \$38,000. You agree to a 60 month loan with a monthly interest rate of 0.55%. What is your required monthly payment?

Ans: \$745.29

N = 60, I/Y=0.55, PV=38000, FV= 0, CPT PMT

2) Davenport Corporation's last dividend was \$2.70 and the directors expect to maintain the historic 3 percent annual rate of growth. You plan to purchase the stock today because you feel that the growth rate will increase to 5 percent for the next three years and the stock will then reach \$25 per share.

a) How much should you be willing to pay for the stock if you require a 17 percent return?

$$P = \frac{2.7(1.05)}{1.17} + \frac{2.7(1.05)^2}{(1.17)^2} + \frac{2.7(1.05)^3}{(1.17)^3} + \frac{25.00}{(1.17)^3} = \$22.16$$

b) How much should you be willing to pay for the stock if you feel that the 5 percent growth rate can be maintained indefinitely and you require a 17 percent return?

$$P = (2.70 \times 1.05) \div (0.17 - 0.05) = \$23.63$$

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3) Corporation paid a dividend yesterday for \$1.50. They expect to pay dividends annually at a constant 6% annual growth rate indefinitely. If the required rate of return on this investment is 12%, what is the current value of this common stock?

$$P = 1.50(1.06) / (0.12 - 0.06) = 26.5$$

4) An investor gathers the following information about a company:

Current dividend per share	\$3
Historical annual dividend growth rate	4%
Expected annual dividend growth rate for the next three years	8%
Expected stock value per share at the end of Year 3	\$33

The investors' required rate of return is 15%, What is the current estimate of the intrinsic value per share?

$$P = 3(1.08) / 1.15 + 3(1.08)^2 / (1.15)^2 + 3(1.08)^3 / (1.15)^3 + 33 / (1.15)^3 = 29.65$$