

**Price Multiple Models:**

Price-to-Earnings Per Share (P/E)

$$\text{Expected Price} = \text{Historical Price-to-Earnings per Share} * \text{Earnings per Share} * (1 + \text{Expected Growth})$$

Price-to-Cash Flow per Share (P/CF)

$$\text{Expected Price} = \text{Historical Price-to-Cash Flow per Share} * \text{Cash Flow per Share} * (1 + \text{Expected Growth})$$

Price-to-Sales per Share (P/S)

$$\text{Expected Price} = \text{Historical Price-to-Sales per Share} * \text{Sales per Share} * (1 + \text{Expected Growth})$$

**Dividend Discount Models:**

Dividend Discount Model:  
(rate = required rate of return)

$$\text{Value} = \frac{\text{Dividend}_1}{1 + \text{rate}} + \frac{\text{Dividend}_2}{(1 + \text{rate})^2} + \frac{\text{Dividend}_3}{(1 + \text{rate})^3} + \text{etc.}$$

Dividend Discount Model:  
(using present value table)

$$\text{Value} = [\text{Dvd}_1 * \text{PVM}_1] + [\text{Dvd}_2 * \text{PVM}_2] + [\text{Dvd}_3 * \text{PVM}_3] + \text{etc.}$$

Zero Growth Model:

$$\text{Value of stock} = \text{Annual Dividends} / \text{Required rate of return}$$

Constant Perpetual Growth Model:

$$\text{Value of stock} = \frac{\text{Annual Dividends} * (1 + \text{Constant Dividend Growth Rate})}{\text{Required Rate of Return} - \text{Constant Dividend Growth Rate}}$$

Constant Growth Model:  
and

Two-Stage Dividend Growth Model (a.k.a. Variable Growth Model):

If you really want to know how to compute these two, go check the book. I will not ask you to do either of these.

Discounted Cash Flow Model (a.k.a. DDM, Dividends and Earnings Model):

$$\text{Value of stock} = \text{Present Value of Dividends} + \text{Present Value of Expected Price of Stock When We Plan to Sell}$$

If company is paying dividends:

$$\text{Value of stock} = [\text{Dividend}_1 * \text{PVM}_1] + [\text{Dividend}_2 * \text{PVM}_2] + [\text{Dividend}_3 * \text{PVM}_3] + \text{etc.} + [\text{Expected Price of Stock}_n * \text{PVM}_n]$$

If company is not paying dividends:

$$\text{Value of stock} = \$0.00 + [\text{Expected Price of Stock}_n * \text{PVM}_n]$$

**Internal Rate of Return:**

=IRR(values, approximate-rate-of-return) where

**values** is the block of cells containing the cash flows, both positive and negative, and  
**approximate-rate-of-return** is our best guess as to what the internal rate of return will be