A: Assets, D: Debt, E: Equity, NWC: Net Working Capital, R: Revenue

Basics
Assets = Debt(Liabilities) + Equity $\cdots\cdots\cdots$ $\Longleftrightarrow$ $A = D + E$

Income = Revenue - Expenses

Net Working Capital = (Current Assets) - (Current Liabilities) $\cdots\cdots$ $\Longleftrightarrow$ $NWC = CA - CL$

CashFlow(Assets) = CashFlow(Creditors) + CashFlow(Stockholders) $\cdots\cdots$ $\Longleftrightarrow$ $CF(A) = CF(B) + CF(S)$

Operating Cashflow = (Net Income) + Depreciation + (ΔNWC) $\cdots\cdots$ $\Longleftrightarrow$ $OCF = EBIT + Depreciation - Taxes$

Liquidity Ratios
Current Ratio = (Current Assets)/(Current Liabilities) $\cdots\cdots$ $\Longleftrightarrow$ $CR = CA/CL$

Quick Ratio = (Current Assets - Inventory)/(Current Liabilities) $\cdots\cdots$ $\Longleftrightarrow$ $CR = (CA - Inv)/CL$

Cash Ratio = Cash/(Current Liabilities) $\cdots\cdots$ $\Longleftrightarrow$ $Cash/CL$

Leverage Ratios
Total Debt Ratio = (Assets - Equity)/Assets $\cdots\cdots$ $\Longleftrightarrow$ $TDR = (A - E)/A$

Debt/Equity Ratio = Debt/Equity $\cdots\cdots$ $\Longleftrightarrow$ D/E

Equity Mulitplier = Assets/Equity $\Longleftrightarrow$ 1 + Debt/Equity $\cdots\cdots$ $\Longleftrightarrow$ $EM = A/E \Longleftrightarrow 1 + D/E$

Coverage Ratios
Times Interest Earned = (Earnings Before Interest and Taxes)/Interst $\cdots\cdots$ $\Longleftrightarrow$ $TIE = EBIT/Interest$

Cash Coverage = (EBIT + Depreciation + Amortization)/Interest

Ratio Analysis
Inventory Turnover = Cost of Goods Sold/Inventory $\cdots\cdots$ $\Longleftrightarrow$ $IT = COGS/Inventory$

Days' Sales in Inventory = 365/(Inventory Turnover) $\cdots\cdots$ $\Longleftrightarrow$ $DSI = 365/IT$

Receivables Ratios
Receivables Turnover = Sales/(Accounts Receivable) $\cdots\cdots$ $\Longleftrightarrow$ $RT = S/AR$

Days' Sales in Receivables = 365/(Receivables Turnover) $\cdots\cdots$ $\Longleftrightarrow$ $DSR = 365/RT$

Total Asset Turnover = Sales/(Total Assets) $\cdots\cdots$ $\Longleftrightarrow$ $TAT = S/A$

Profitability Ratios
Profit Margin = (Net Income)/Sales $\cdots\cdots$ $\Longleftrightarrow$ $PM = NI/S$

Return on Assets = (Net Income)/(Total Assets) $\cdots\cdots$ $\Longleftrightarrow$ $ROA = NI/A$

Return on Equity = (Net Income)/(Total Equity) $\cdots\cdots$ $\Longleftrightarrow$ $ROE = NI/E$

Market Value Measures
Earnings Per Share = (Net Income)/(Shares Outstanding) $\cdots\cdots$ $\Longleftrightarrow$ $EPS = NI/SO$

Price-to-Earnings Ratio = (Price per Share)/(Earnings per Share) $\cdots\cdots$ $\Longleftrightarrow$ $PE\ Ratio = PPS/EPS$

Market Capitalization = (PPS)·(Shares Outstanding)

Dividend Ratios
Dividend Payout Ratio = (Dividends Paid)/Net Income = d

Retention Ratio = 1 - (Dividends Paid)/Net Income $\cdots\cdots$ $\Longleftrightarrow$ $b = 1 - d$

Du-Pont Identity
$ROE = \frac{NI}{S} \cdot \frac{S}{A} \cdot \frac{A}{E}$ $\cdots\cdots$ $\Longleftrightarrow$ $ROE = PM \cdot TAT \cdot EM$

Pro Forma Income Statement for year n
(Projected) $Sales_n = Sales_{n-1} \cdot (1 + Growth\ Rate)$

(Projected) $(Cost\ of\ Goods\ Sold)_n = (Cost\ of\ Goods\ Sold)_{n-1} \cdot (1 + Growth\ Rate)$

(Projected) $(Taxable\ Income)_n = Sales_n - Costs_n - Interest_n$

(Projected) $Interest_n = Interest_{n-1} + (Interest\ Rate) \cdot D$

(Projected) $Taxes_n = (Tax\ Rate) \cdot (Taxable\ Income)_n$

(Projected) $(Net\ Income)_n = (Taxable\ Income_n) - Taxes_n$

(Projected) $Dividends_n = (Net\ Income)_n \cdot (Dividend\ Payout\ Ratio)$

(Projected) $(Addition\ to\ Retained\ Earnings)_n = (Net\ Income_n) - Dividends_n = (\Delta Retained\ Earnings)$

Pro Forma Balance Sheet for year n
(Projected) $Cash_n = Cash_{n-1} \cdot (1 + Growth\ Rate)$

(Projected) $(Accounts\ Receivable)_n = (Accounts\ Receivable)_{n-1} \cdot (1 + Growth\ Rate)$

(Projected) $Inventory_n = Inventory_{n-1} \cdot (1 + Growth\ Rate)$

(Projected) $(Net\ Fixed\ Assets)_n = (Net\ Fixed\ Assets)_{n-1} \cdot (1 + Growth\ Rate)$

(Projected) $(Accounts\ Payable)_n = (Accounts\ Payable)_{n-1} \cdot (1 + Growth\ Rate)$

(Projected) $(Notes\ Payable)_n = (Notes\ Payable)_{n-1} + D$

(Projected) $(Long\ Term\ Debt)_n = (Long\ Term\ Debt)_{n-1} + D$

(Projected) $(Stock)_n = (Stock)_{n-1} - (Buy\ Backs)$

(Projected) $(Retained\ Earnings)_n = (Retained\ Earnings)_{n-1} + \Delta Retained\ Earnings$

Solve for D *by setting Total Assets = Total Liabilities*

The example in the pro forma worksheet said to assume that NWC *stays the same*

External Financing Needed (EFN)
EFN = (Projected Total Assets) - (Spontaneous ΔLiabilities) - (ΔRetained Earnings)

EFN > 0 ? "External financing needed" : "Company has excess funds"

Growth Rate
Internal Groth Rate = (ROA·b)/(1 - ROA·b) = IGR

Sustainable Groth Rate = (ROE·b)/(1 - ROE·b) = SGR

Assuming a constant growth in Sales and COGS of 25% *(i)*, $d = \frac{1}{3}$ ($\implies b = \frac{2}{3}$), and a constant NWC *(ii)*, we get:

Pro Forma Income Statement	2013	% of Sales	2014 (Projected)
Sales	1000	80%	$1000 \cdot 1.25 = 1250^*$
Costs	800	80%	$800 \cdot 1.25 = 1000^*$
Taxable Income	200	20%	$1250 - 1000 - 0 = 250^\gamma$
Taxes(34%)	68	6.8%	$0.34 \cdot 250 = 85^\gamma$
Net Income	132	13.2%	$250 - 85 = 165^\gamma$
Dividends	44	4.4%	$165 \cdot \frac{1}{3} = 55^\gamma$
Additions to Retained Earnings	88	8.8%	$165 - 55 = 110^\gamma$

Pro Forma Balance Sheet

Assets

	2013	% of Sales		2014 (Projected)
Current Assets				
Cash	160	16%		$160 \cdot 1.25 = 200^*$
Accounts Receivable	440	44%		$440 \cdot 1.25 = 550^*$
Inventory	600	60%		$600 \cdot 1.25 = 750^*$
Total Current Assets	1200	120%		$1200 \cdot 1.25 = 1500^*$
Net Fixed Assets	1800	180%		$1800 \cdot 1.25 = 2250^*$
Total Assets	3000	300%		$3000 \cdot 1.25 = 3750^*$

Liabilities

	2013	% of Sales	1st Step	2014 (Projected)
Current Liabilities				
Accounts Payable	300	30%	$300 \cdot 1.25 = 375^*$	$300 \cdot 1.25 = 375^*$
Notes Payable	100	n/a	100	325^α
Total Current Liabilities	1200	120%	1500	700^α
Long-Term Debt	800	n/a	800	1140^β
Owners' Equity				
Stock	800	n/a	800	800^γ
Retained Earnings	1000	n/a	$1000 + 110 = 1110$	$1000 + 110 = 1110^\gamma$
Total Liabilities and O.E.	3000	n/a	3185^δ	3750

*: By *(i)*, we have that (Growth Rate) $= 0.25 \implies (*)_{2014} = * \cdot 1.25$.
α: By *(ii)*, we get $1200 - 400 = 800 \implies 1500 - CL_{2014} = 800 \implies CL_{2014} = 700$ and (Notes Payable) $= 700 - 375 = 325$.
β: We have that (Total Assets)$_{2014} = 3750 \implies 3750 = CL_{2014} + LTD_{2014} + OE_{2014} \implies LTD_{2014} = 3750 - 700 - 1910 = 1140$.
γ: The rest of the entries in the table are filled out using the equations from **Pro Forma * for year** *n*.
γ: $3185 \implies$ EFN = 3750 - 3185 = 565..

Definitions and Et Cetera
Capital Budgeting: Evaluating and selecting long-term investments.
Capital Structure Mix of debt and equity to finance operations.
Net Working Capital: Reflects short-term financial health. NWC > 0 ? Usually good : Usually bad.
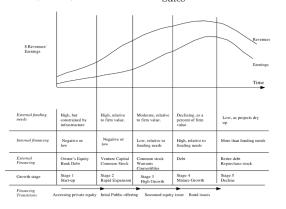Internal Growth Rate: Maximum growth rate *without* EFN.
Sustainable Growth Rate: Maximum growth rate *without* EFN *and* maintaining a constant debt/equity ratio.
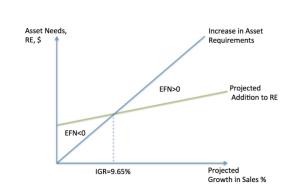SGR < IGR $\implies$ The company has some shit internal growth management. Change dividend policy, $\uparrow$ efficiency, $\uparrow$ profitability. No EFN.
SGR = IGR $\implies$ The company is able to finance its growth solely through retained earnings and doesn't need EFN.
SGR > IGR $\implies$ The company can grow faster than internal financing alone. We can use EFN.
EFN (again) $= \frac{\text{Assets} - (\text{Spontaneous Liabilities})}{\text{Sales}} \cdot \Delta\text{Sales} - ([\text{Profit Margin}] \cdot [\text{Projected Sales}]) \cdot (1 - d)$