Problem 1
a. Return on capital = 150/1000 = 15%
Reinvestment rate = 33.33% !g/ ROC; you cannot grow without reinvesting
Value of operating assets = $2,100.00 ! 150 * (1-.33)* 1.05/ (.10 - .05) = 2100

b. Value of Powloon
Return on capital = 40/400 = 10.00%
Reinvestment rate = 30.00%
Value of Powloon Steel = $480.67
Value of 25% share = $120.17
c. Value
Value of operating assets = $2,100.00
+ Value of Minority Holding = $120.17
+ Cash $100.00
- Debt $250.00
Value of Equity in common stock = $2,070.17
value per share = $20.70

Problem 2
Market value of equity = $1,200.00
Book value of equity = $800.00
Return on Equity = 12.50%
Cost of equity = 10%
Price to Book ratio = 1.5
1.50 = (.125-g)/(.10-g)
Solving for g, Growth rate= 5% ! If you use the long equation with (1+g) in the numerator, g = 4.3%

Problem 3
Enterprise value = MV of equity + Debt - Cash = 1200 + 300 - 150 = 1350
EBITDA = 70/(1-.3) + 50 = 150
EV/ EBITDA = 1350/150 = 9
9 = 5.62 - 3.5 (.3) + 31.5 (ROC)
Solving for ROC,
ROC = 14%
ROC = .14 = 70/X
Capital invested = 500