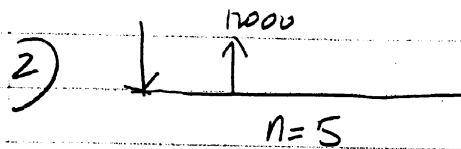


# IE 492 HOMEWORK PART II

1)  $i = 1 \left(1 + \frac{.18}{12}\right)^{12} = 19.6\%$



$$NPV = \left[ \frac{12000 (P/A - 10 - 5)}{3.79} + \frac{5000 (P/F - 10 - 5)}{.6209} \right] - 30000$$

$$45480 + 3104 - 30000 = 18584$$

$L=10 \quad 30000 = 12000 \left( \frac{3}{2.69} \right) + 5000 (.4019) =$   
 $L=25 \quad 12000 \left( \frac{2.69}{2.43} \right) + 5000 (.3277)$   
 $L=30 \quad 12000 \left( \frac{2.43}{2.43} \right) + 5000 (.2693) = 30500$   
 - approx 30%

24320  
25000  
49320  
1188  
50508

3)  $100000 \left( \frac{.12432}{.12432} \right) - 10000 \left( \frac{.1252}{.1252} \right) + 25000 = 47068$   
 $150000 \left( \frac{.12432}{.12432} \right) - 40000 \left( \frac{.1252}{.1252} \right) + 8000 = 39452$

4)

$$1000 = 58.50 (P/A - i - 2T)$$

$$\frac{1000}{58.50} = 17.09$$

3% = 16.93

approx = 3% = 42%

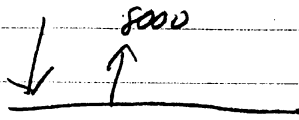
$$\begin{array}{r} 27552 \\ 370 \\ \hline 27922 \\ -24000 \\ \hline \end{array}$$

$$\begin{array}{r} 16000 \\ \hline \end{array}$$

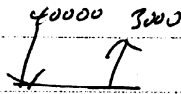
$$\begin{array}{r} 24171 \\ 123 \\ \hline 23500 \\ \hline \end{array}$$

$$\begin{aligned} 3) \quad 1 &= 5500(5.01) + 1500(1.2472) - 28000 = -75 \\ &3300(5.01) - 16000 = +533 \\ &4400(5.01) + 500(1.2472) - 23500 = 671 \end{aligned}$$

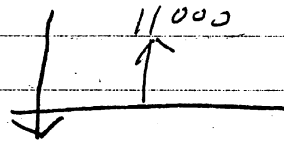
6)



$$\begin{aligned} &8000(P/A - 6 - 22) \\ &81260 \\ &-90000 = 11760 \end{aligned}$$



$$3000(11.47) - 40000 = -$$



$$\begin{aligned} &11000(11.47) - 120,000 \\ &126390 = 6390 \end{aligned}$$