Ali Prasla

Homework 1

Fin 372

1. View R code
2. View R code
3. View R code
4. AB =[[ (3 \* 3 + -1 \* 7 + 2\*-1) , (3 \* -6 + -1 \* -14 + 2 \* 2) , (3 \* -3 + -1 \* - 7+ 2 \* 1) ],[(1\*3 + 0 \* 7 + 3\* -1), (1 \* -6 + 0 \* -14 + 3 \* 2),(1 \* -3 + 0 \* 7 + 1 \* 3)], [(3 \* 3 + -2 \*-7 + -5 \* -1),((3 \* - 6+ -2 \* -14 + -5 \* 2), ( 3\* -3 + -2 \* -7 + -5 \* 1)]
   1. AB = [[0,0,0],[0,0,0],[0,0,0]]
   2. AB = 0
5. BA = [[(3 \*3 + -6 \* 1 + -3 \* 3),(-1 \* 3 + 0 \* - 6 + 2 \* -3),(2 \* 3 + 3 \* -6 + -5 \* -3)],[(7\*3 + 1\*-14 + -7\*3),(7\*-1 + 0\*14 + 3\*-2),(7\*2 + -14\* 3 + -7\*-5)],[(-1\*3 + 2\* 1 + 1\* 3), (-1\*-1 + 2\* 0 + 1\* -2), (-1\*2 + 2\* 3 + 1\* -5)]
   1. BA = [[-6,3,3],[-14,7,7],[2,-1,-1],[2,-1,-1]]
   2. BA != AB
   3. R confirms
6. Objective –
   1. Choose F S P H
   2. Constraints –
      1. F + S + H + P = 250 Mil
      2. .45F - .55S = 0
      3. .25F -.75S + .25H + .25P = 0
      4. .14F + .2S + .2H + .1P = .15
   3. Used matrix to solve for the values of F, S , H, P
      1. First Mortgage = $76,388,889
      2. Second Mortgage = $62,500,000
      3. Home Improvement = $100,694,444
      4. Personal Overdraft = $10,416,667