```
! Keywords: Demand Backlog / Distribution / Inventory / Network / Product Management /
Production / Reorder Point / Shipping / Transportation / Geographic;
! A 3 level distribution problem;
MIN     AX + 2 AY + 3 BX + BY + 2 BZ + 5 X1 + 7 X2
      + 9 Y1 + 6 Y2 + 7 Y3 + 8 Z2 + 7 Z3 + 4 Z4
SUBJECT TO
      2)      AX + AY = 9
      3)      BX + BY + BZ = 8
      4)   - AX - BX + X1 + X2 = 0
      5)   - AY - BY + Y1 + Y2 + Y3 = 0
      6)   - BZ + Z2 + Z3 + Z4 = 0
      7)   - X1 - Y1 = -3
      8)   - X2 - Y2 - Z2 = -5
      9)   - Y3 - Z3 = -4
     10)   - Z4 = -5
      END
```