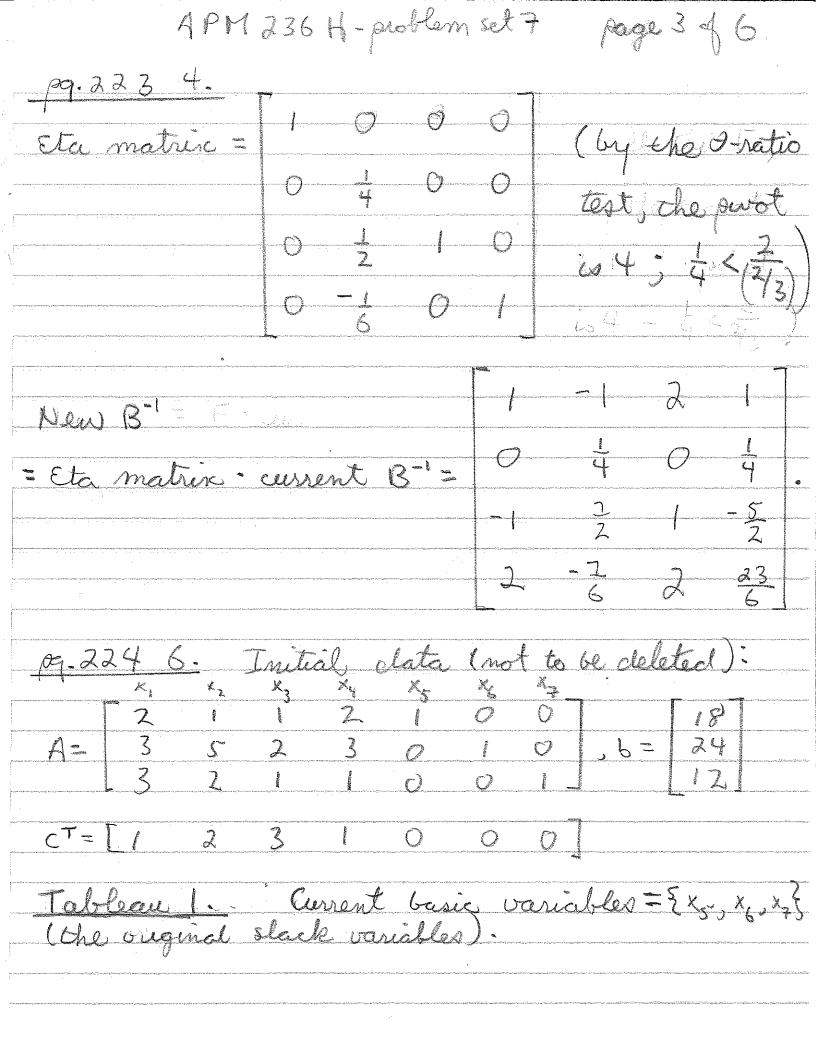
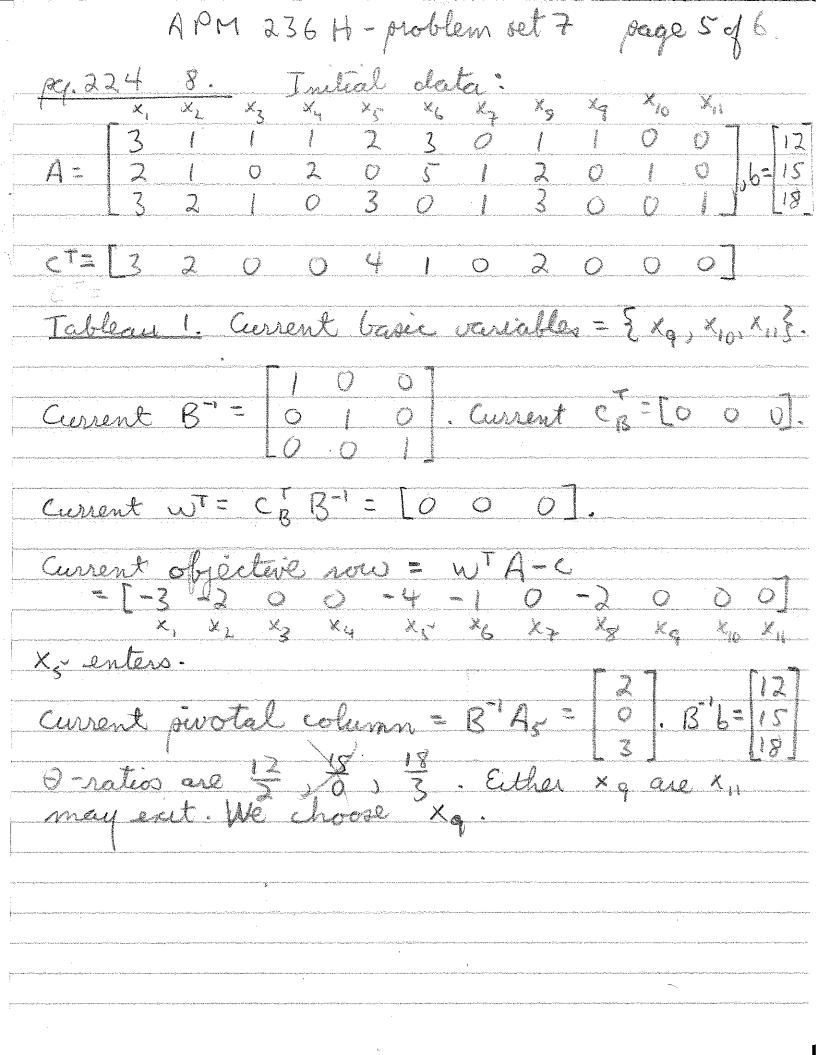
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pg. 214 2. Tableau O & gwen in the question.  Xx exits: By the ratio test Xx enters and the  pwot is "-3" to get tableau O:
fivot is "-3" to get tableau (2):
x / 0 0 -1 0 3 3
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
20.00103339
The optimal (and feasible) solution is [x x, x, x, x, x, x, x, x]=[3 4 10 0 1 0].
pg.215 4. The x6-rew of the tableaux represents the constraint \$ \frac{1}{3} \text{ x4 } \frac{2}{3} \text{ x5 } \text{ x6 } = \frac{1}{3}.
In vew of the fact that the tableau represents a concrucal problem (with $x_1 \ge 0$ )
$x_s \ge 0$ , $x_t \ge 0$ ), the problem has no feasible solution.
19.215 8. Tableau (D)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
1 2 0 0 0 0 0

APM 236 H-problem set 7 page 2 of 6 8. (cont'd) Tableau (2) 0 Tableau (3)  $X_1 = \frac{45}{13}, X_2 = 0, X_3 = \frac{12}{13}$ Optimal values · Eta metriss=



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Pg-224 6. (cont'd)  Current 8'= 0 1 0 - Current CB= [0 0 0]
Current WT = CBB-1 = [0 0 0].
Curent objective now = wTA-C = [-1-2-3-1000]. x, x, x
× enters.
Current protect column = B'A= 2 . B'b= 24  0-ratios are ; 2 ; 2 . Either x, or x,  may exit. We choose x.
may exit. We choose xz.
Tableau 2. New basic variables are Exs. X6 X3.
New B' = eter matrix : current B' = 0 1 -2.
New CB = [0 0 3], new WT = CBB'= [0 0 3],
and new objective now = WTA-CT = [8 4 0 2 0 0 3].
Tableau 2 is optimal (B-16)T = [6 0 12],
Tableau 2 is optimal (B-16) = [6 0 12],  and this gives the optimal solution  x=0, x=0, x=12, x=20, x=6, x=0, x=0, x=0, with optimal objective value w=36.
with optimal objective value W'b - 36.



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19.224 8. (cont.d)
Tableau 2: New basic variables are {x5, x10, x118
New $B' = eta$ matrix : $anstrix = \begin{bmatrix} \frac{1}{2} & 0 & 0 \\ 0 & 1 & 0 \\ -\frac{3}{2} & 0 & 1 \end{bmatrix}$
New CB = [4 0 0], new W= CBB'=[200],
and new objective now = wTA-CT =[30]20500200]
Tableau Dis optimal, B'6= 15 - xo
and the optimal objective value is Wb=24.