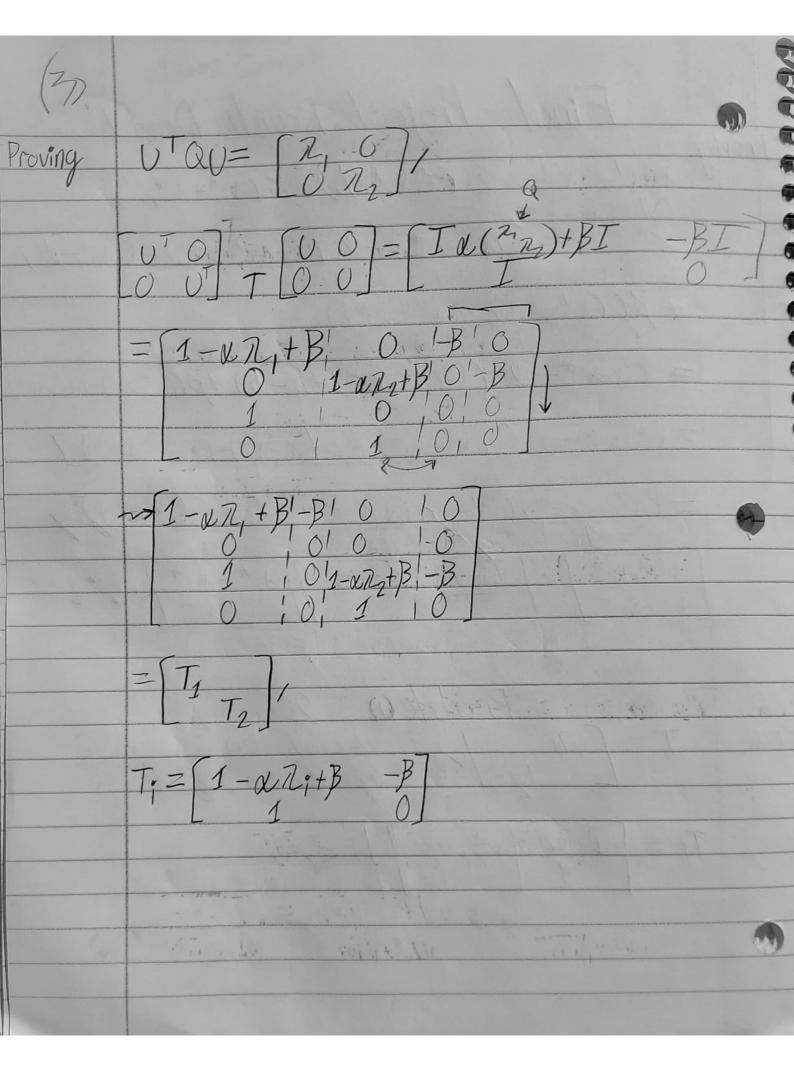


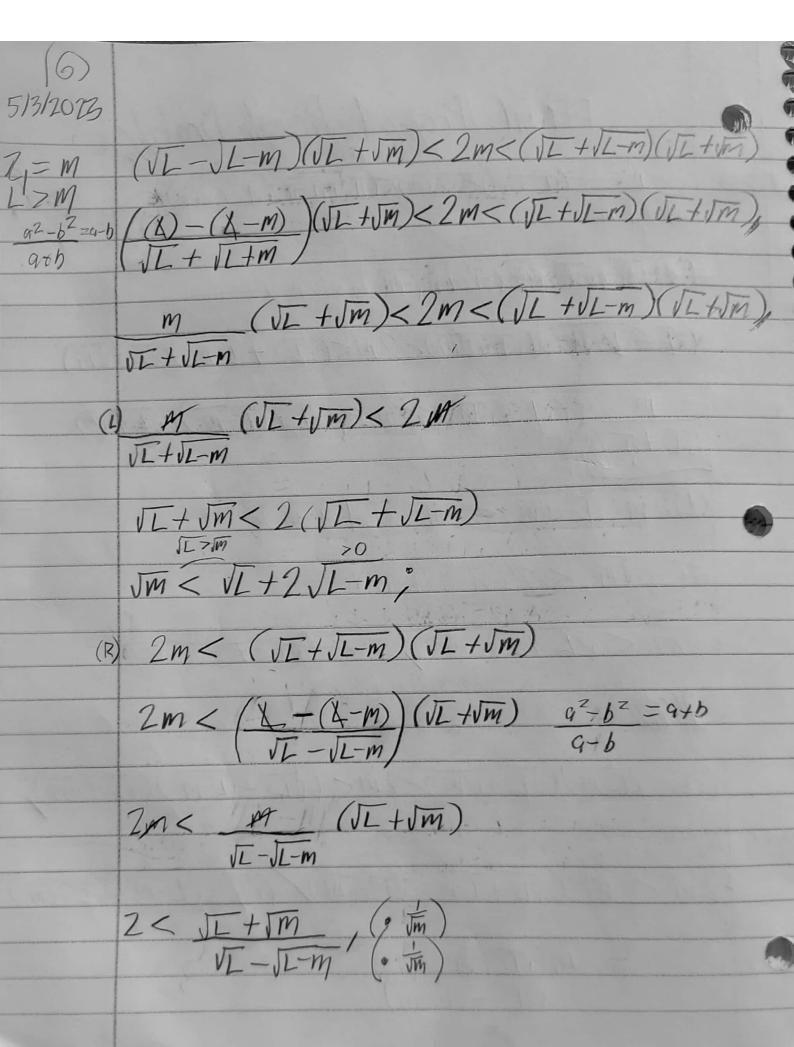
Final Project Rough Draft Proving (Suha x x - 2 (Qx x - b) + B (x x - x x - 1) $(Subs X - X^{+}) \times (Q(X^{+} - X^{+}) + Q(X^{+} - b))$ + B((xx-xx)-(xx+1xx)) $= x^{k} x^{*} - Q \left(Q(x^{k} - x^{*}) + b - b \right) + B((x^{k} + x^{*}) - (x^{k-1} + 1)$ $= x^{k} - x^{k} - a Q(x^{k} - x^{k}) + B(x^{k} + x^{k}) - (x^{k-1})$ $\begin{cases} x^{k+1} - x^{+} \\ x^{k} - x^{+} \end{cases} = \begin{bmatrix} I - aQ + B - B \\ I & O \end{bmatrix} \begin{cases} x^{k-1} - x^{+} \end{cases} \circ \circ$ To = 1-a 12 ptB -B / i=1,2



Final Project Rough Draft
Problem 3

Min Min of Tip as function of River, B Finding det($rI-T_i$) = det($r-(1-\alpha R_i+B)$) -(-B) $= r(r - (1 - \alpha \lambda_i; + \beta) + (+(1))(+(\beta))$ $= r^{2} - r(1 - a \lambda_{0} + \beta) + \beta = 0$ Mig = -6 1- 162-490 = -(-(1-an;+B))-1(1-an;+B-40) $= (1-\alpha \pi; +\beta) + \sqrt{(1-\alpha \pi; +\beta)^2 - 4\beta}$ Prove $(1-\alpha \pi_i + \beta)^2 - 4\beta < 0$ Proving (1-az;+B)2 < 4B <=> - 2JB < 1-az +B < 2JB W= 4 B=JL-IM=JL-IM / JL+JM

 $= (\sqrt{L} + \sqrt{m}) + (\sqrt{L} + \sqrt{m}) (\sqrt{L} - \sqrt{m})$ = 1 +m+ 1 Lm + L-m-42; $<2L+JLm-4\pi;$ $<2(JL-m)^2$ $(VL+Jm)^2$ prove (=>(-L-JLM-JL-M)(JL+JM)X-22;<(-L-JLm+)L-m) (=XL+JLm-JL-m)(JL+Jm) <27;<(L+JLm+JL-m)(JL+JM) => (JL(L+m) -JL-m) (JL+Jm) <27; < (JL(L+m)+JL-m) (JL+Jm) (JE-JE-M)(JE+VM) (JE+JE-M)(JE+VM)



Final Project Rough Droft $\frac{2}{\sqrt{m}} - \frac{1}{\sqrt{m}} = \sqrt{k+1} \quad (k=1)^{2}$ $\sqrt{m} - \sqrt{m-1} \quad \sqrt{k-1} \quad (k=1)^{2}$ 2/E-2/E-T</F +1 VE -7 VE-1 < 1 Je -Je-1 < 1+JE-1 don't get this $1 < (1+\sqrt{k-1})(\sqrt{k-\sqrt{k-1}});$ 21 21 $2L < (\sqrt{L-\sqrt{L-m}})(\sqrt{L+\sqrt{m}}) < 2L < (\sqrt{L+\sqrt{L-m}})(\sqrt{L+\sqrt{m}})$ (L) (VI-JL-M)(VI+VM) < 2L $L+JmL-JL^2-mL<2L/Since this part$ $L>JmL-JL^2-mL is optional/$ L > JML - JL2-ML L> ML-(12-ML) = 1L(2m-L) LAY MIL + VL2-ML VML + VLZ-ML

(8) Prove 1Mist, 1Mi,21=JB, i=1,2 Proving Min = (1-wn; B)+ (1-wn; +B) = -4B $= (1 - \alpha \pi_i \beta) + i \int 4\beta - (1 - \alpha \pi_i \beta)$ M: 1/2 = (1-02:+13) + (4B-(1-02:13)) = 4B = B+1+11 $|M_1 + 1| = \sqrt{\beta} = \sqrt{(\sqrt{L} + \sqrt{m})(\frac{1}{2})} = \sqrt{\frac{1}{m}} - \frac{1}{\sqrt{m}}$ $= \sqrt{E-1} \cdot (\frac{1}{E}) = \sqrt{1-\frac{1}{5E}} = \sqrt{1-\frac{1}{5E}}$ $\sqrt{E+1} \cdot (\frac{1}{E}) = \sqrt{1+\frac{1}{5E}} = \sqrt{1+\frac{1}{5E}}$

Final Project Rough Draft Missing Problem 2 -15