

2nd Year- Civil. Eng. Mid-Term Exam – Mathematics 1 Hour (November 2009)

(1) Solve the LP: Minimize $f = 3x - y$ subject to $x + y \geq 2$, $x - y \leq 3$, $-x + y \leq 3$, $x \geq 0$.

Also, write its dual problem.

(2) From the data: (2.2, 0.81), (2.4, 0.68), (2.6, 0.52), (2.8, 0.33), (3, 0.14).

(a) Write the table of differences and find the value of y at $x = 2.5$

(b) Find the logarithmic curve $y = a \ln x + b$ that fits these data

Good Luck

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