

*** LINEAR PROGRAMMING ***

PROBLEM NAME: Montana wood products

Max Z= 15 X1 + 21 X2

ST

(1) 4 X1 + 3 X2 <= 920

(2) 8 X1 + 12 X2 <= 2400

(3) 1 X1 >= 100

(4) 1 X2 >= 100

SOLUTION:

ITERATION NUMBER 4

VARIABLE MIX	SOLUTION
Slack 1	20.000
Slack 3	50.000
X1	150.000
X2	100.000
Z	4350.000

SENSITIVITY ANALYSIS:

CONSTRAINTS:

CONSTRAINT NUMBER	TYPE OF CONSTRAINT	SHADOW PRICE	RANGE OF RHS FOR WHICH SHADOW PRICE IS VALID
1	<=	0.000	900. -- +INF
2	<=	1.875	2000. -- 2440.
3	>=	0.000	-INF -- 150.
4	>=	1.500	93.3333 -- 133.3333

NOTE: THE SHADOW PRICE REPRESENTS THE AMOUNT Z WOULD
CHANGE IF A CONSTRAINT'S RHS CHANGED ONE UNIT.

DECISION VARIABLES:

NONBASIC VARIABLE	AMOUNT Z IS REDUCED (MAX) OR INCREASED (MIN) FOR ONE UNIT OF X IN THE SOLUTION
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NONE