9. Read the answer from the following finished tableau (based on #4). Give the location of the maximum, the maximum itself, and the resulting surpluses.

Use the word problem in #4 to give a plain English version of the answer for your supervisor at the Soup Parlour. Be sure to include the recommended decision, its important effect (the "bottom line"), and some information on the slack variables.

	M	L	S	C	B	V	HM	HL	HS	Profit	RHS
M	1	0	0	-1/8	3/16	0	0	0	0	0	850
HS	0	0	0	-3/8	1/16	0	0	0	1	0	50
S	0	0	1	3/8	-1/16	0	0	0	0	0	850
HM	0	0	0	1/8	-3/16	0	1	0	0	0	350
L	0	1	0	-5/64	-1/128	1/8	0	0	0	0	308
HL	0	0	0	5/64	1/128	-1/8	0	1	0	0	292
P	0	0	0	995/32	775/64	65/4	0	0	0	1	269540

Served 850 out of 1200, so 350 went hungry

M = 850 C = 0 HM = 350

L = 308 B = 0 HL = 292

S = 850 V = 0 HS = 50

Profit = 269540 pennies (Be careful about units for the Profit)

Plain English recommendation:

Prepare 850 bowls worth of Meaty,
308 bowls worth of Leafy
850 bowls worth of Soupy.

This will use all the ingredients, leaving 692 hungry customers, but will maximize the profit at:

$2695.40

Higher level evaluation: Does the Soup Parlour need more supplies or more marketing right now?

We desperately need more supplies! Since we know the demand we can even calculate how much of each ingredient we need, then go buy it before the lunch rush!