

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
1	0	0	-1/8	3/16	0	0	0	0	0	850
0	0	0	-3/8	1/16	0	0	0	1	0	50
0	0	1	3/8	-1/16	0	0	0	0	0	850
0	0	0	1/8	-3/16	0	1	0	0	0	350
0	1	0	-5/64	-1/128	1/8	0	0	0	0	308
0	0	0	5/64	1/128	-1/8	0	1	0	0	292
0	0	0	995/32	775/64	65/4	0	0	0	1	269540

M = 850 bowls C = 0 oz. HM = 350 bowls
 L = 308 bowls B = 0 oz. HL = 292 bowls
 S = 850 bowls V = 0 oz. HS = 50 bowls
 Profit = 269540 cents (Be careful about units for the Profit)

Plain English recommendation:
 Prepare 850 bowls of Meaty soup, 308 bowls of Leafy soup, and 850 bowls of Soupy soup. This will make the highest profit, \$2695.40. There is still demand for 350 bowls of Meaty soup, 292 bowls of Leafy soup, and 50 bowls of Soupy soup. All ingredients are completely used up.

Higher level evaluation: Does the Soup Parlour need more supplies or more marketing right now?
 Soup Parlour needs more supplies. There is still unsatisfied demand for all three kinds of soup. If they had more supplies, they could sell more soup and make more money.