## **Simplex Method**

Reddy Mikks produces both interior and exterior paints from two raw materials, M1 and M2. The following table provides the basic data of the problem:

Tons of raw material per ton							
	exterior	Interior	Max. daily				
	paint	paint	availability (tons)				
Raw material	6	4	24				
M1							
Raw material	1	2	6				
M2							
Profit per ton	5	4					
(\$1000)							

A market survey indicates that the daily demand for interior paint cannot exceed that for exterior paint by more than 1 ton. Also the maximum daily demand for interior paint is 2 tons. Reddy Mikks wants to determine the optimum product mix of interior and exterior paints that maximizes the total daily profit.

Basic	Z	<b>X</b> <sub>1</sub>	<b>X</b> <sub>2</sub>	$S_1$	S <sub>2</sub>	<b>S</b> <sub>3</sub>	<b>S</b> <sub>4</sub>	Solution	
Z									z-row
S <sub>1</sub>									s <sub>1</sub> -row
S <sub>2</sub>									s <sub>2</sub> -row
<b>S</b> <sub>3</sub>									s <sub>3</sub> -row
S <sub>4</sub>									s <sub>4</sub> -row

Basic	Z	<b>X</b> <sub>1</sub>	<b>X</b> <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	<b>S</b> <sub>3</sub>	<b>S</b> <sub>4</sub>	Solution	
Z									z-row

Basic	Z	<b>X</b> <sub>1</sub>	<b>X</b> <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	<b>S</b> <sub>3</sub>	<b>S</b> <sub>4</sub>	Solution	
Z									z-row

