ARE YOU READY?

Formulating a linear programming model

The Oakfield Corporation manufactures tables and chairs. A table requires 1 hour of labour and 9 square board metres of wood, and a chair requires 1 hour of labour and 5 square board metres of wood. Currently, 6 hours of labour and 45 square board metres of wood are available. Each table contributes R8 to profit, and each chair contributes R5 to profit.
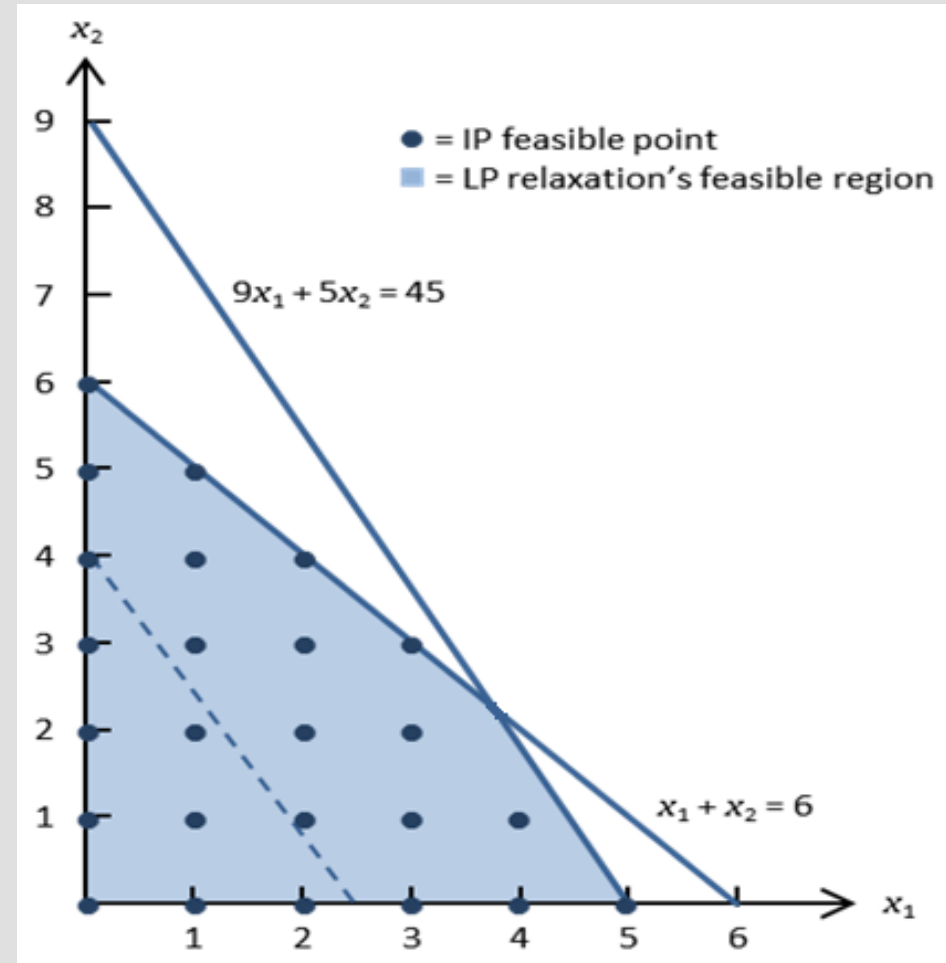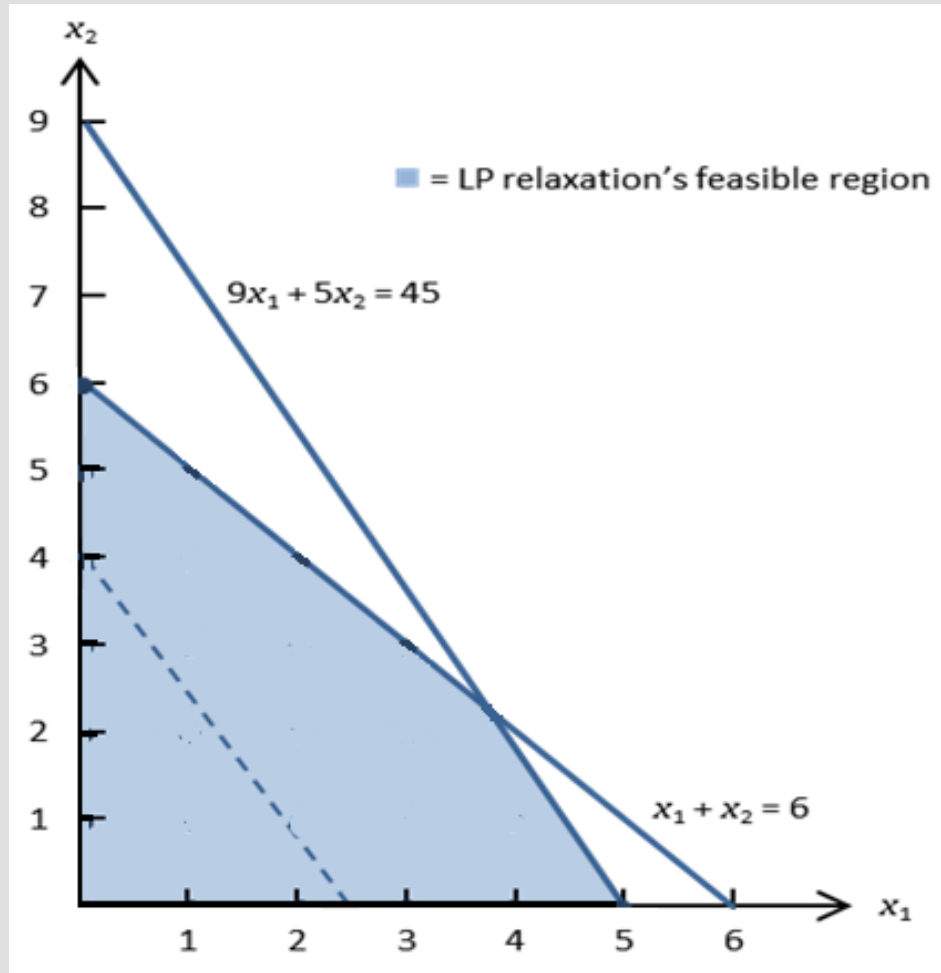
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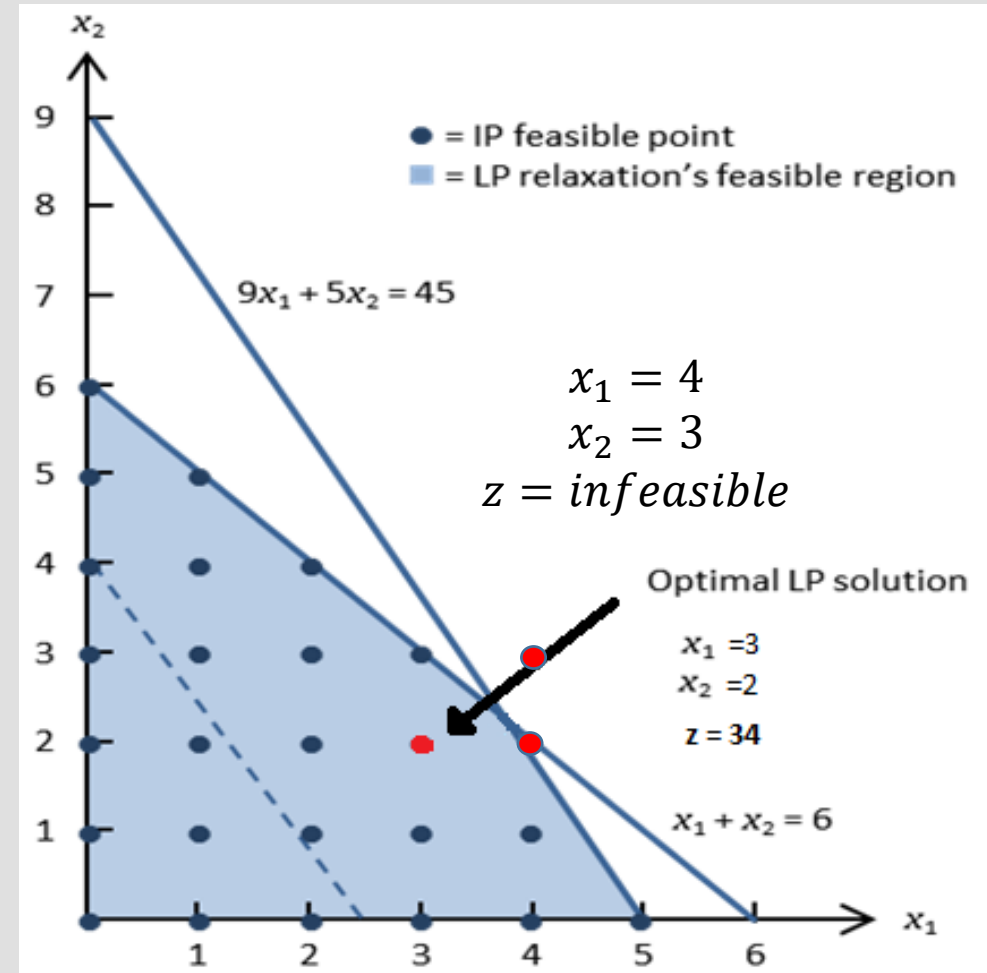
BELGIUM CAMPUS
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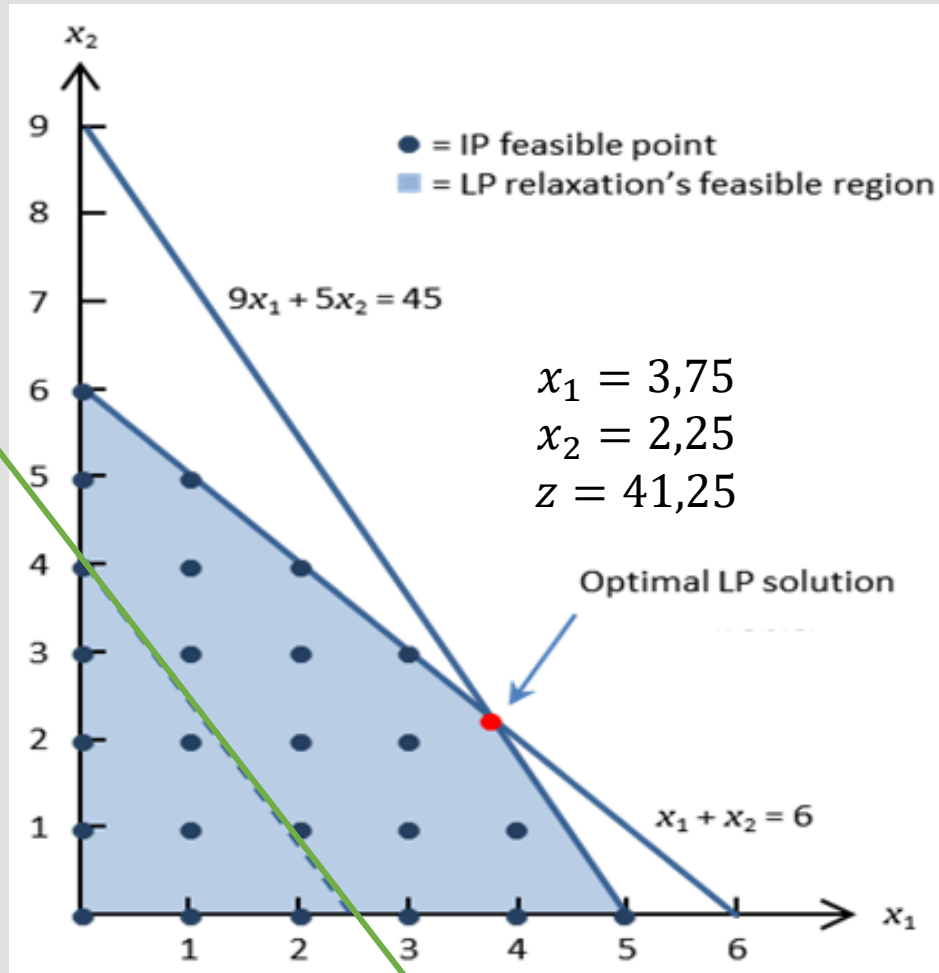
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Graphical Solution – Pure IP

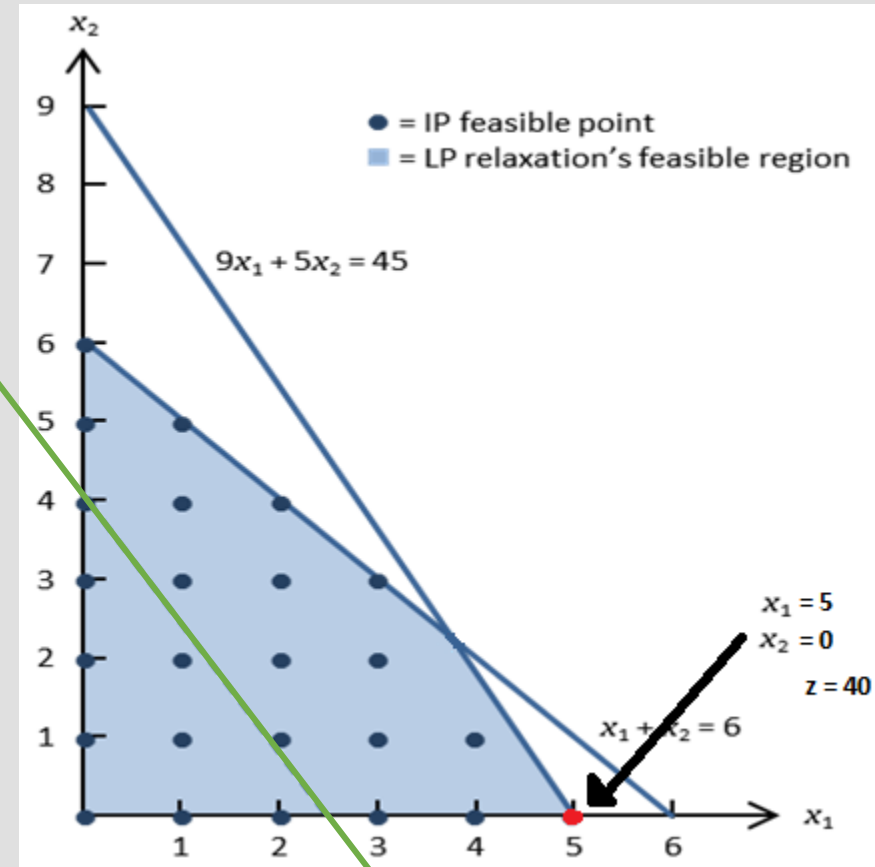# Graphical Solution (Continue) Pure IP

$x_1 = 3,75$
$x_2 = 2,25$
$z = 41,25$

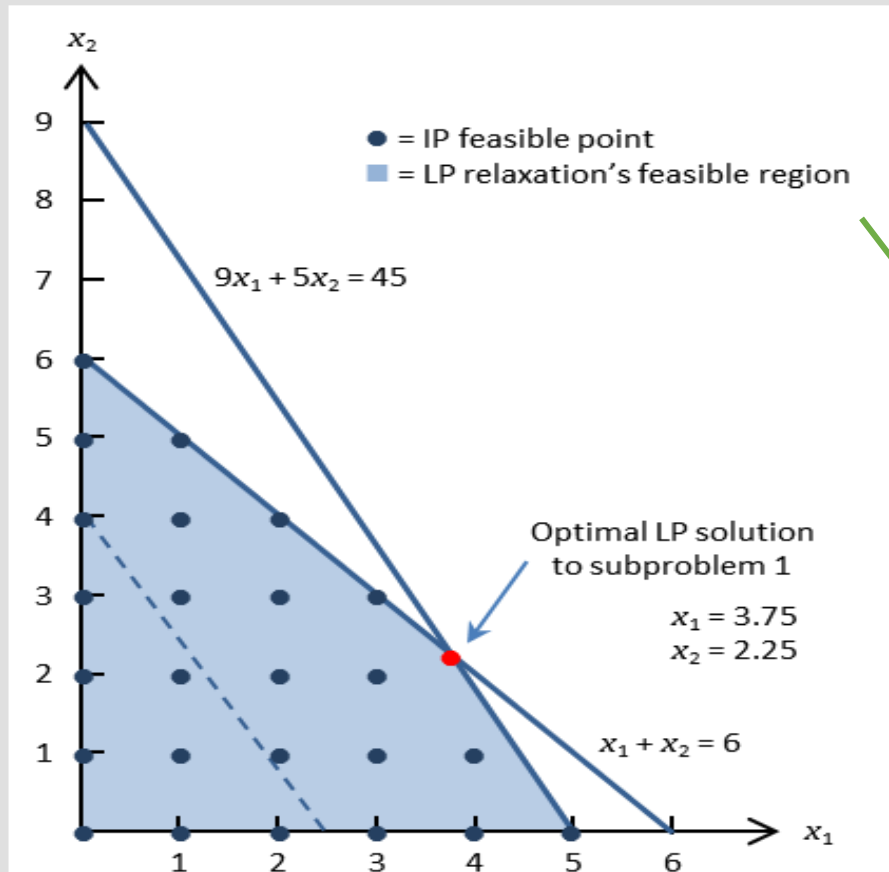$x_1 = 4$
$x_2 = 3$
$z = infeasible$

Solver (Continue) Pure IP

	x1	x2	ref.	sign	rhs
Solver:					
var.	5	0			
obj.	8	5	40		
s.t.	1	1	5	<=	6
	9	5	45	<=	45

Graphical Solution (Final) Pure IP
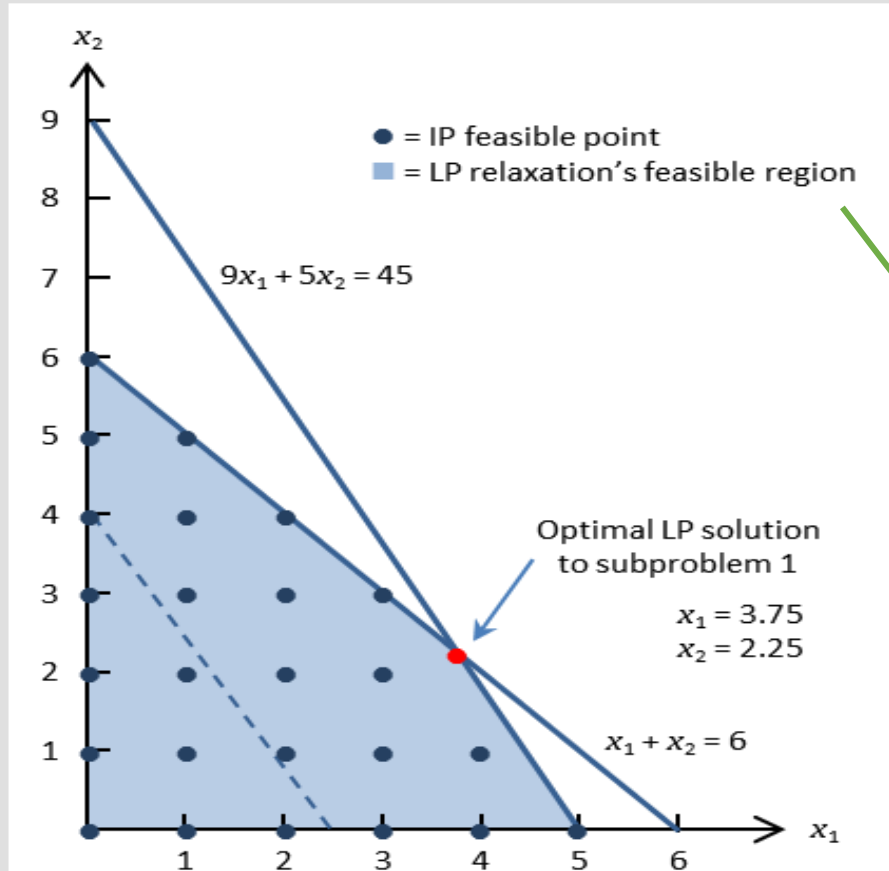
Graphical Solution - Mixed IP ($x_1 \ integer$)

$$x_1 = 4$$
$$x_2 = 1{,}8$$
$$z = 41$$
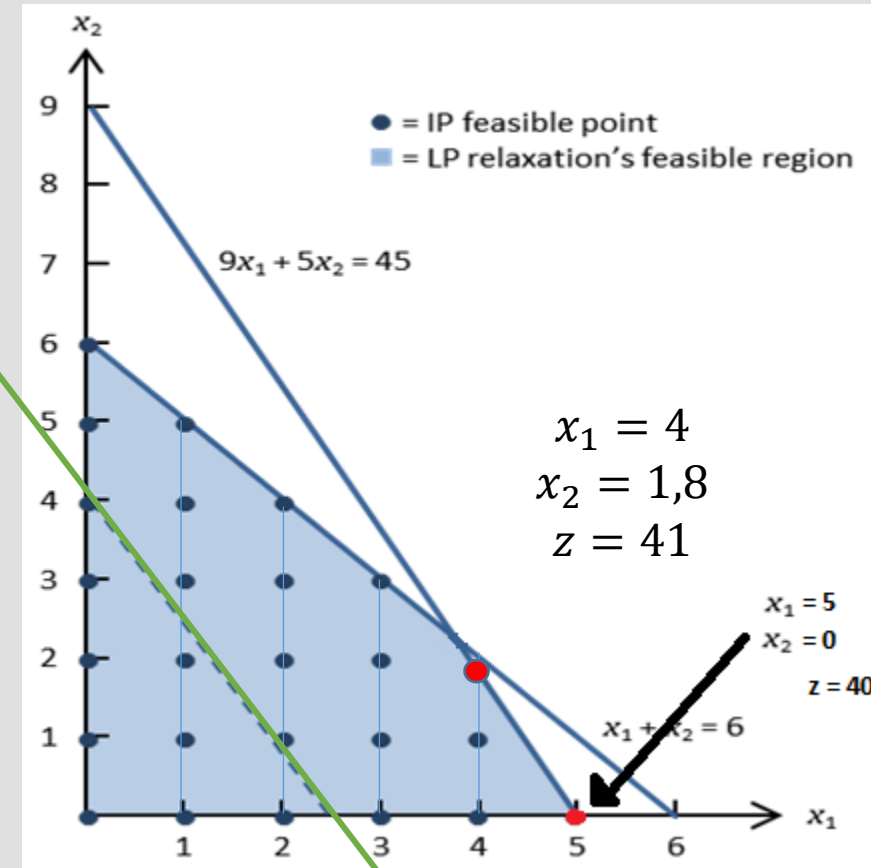
Graphical Solution - Mixed IP (x_2 $integer$)

$x_1 = 3{,}89$
$x_2 = 2$
$z = 41{,}11$

END

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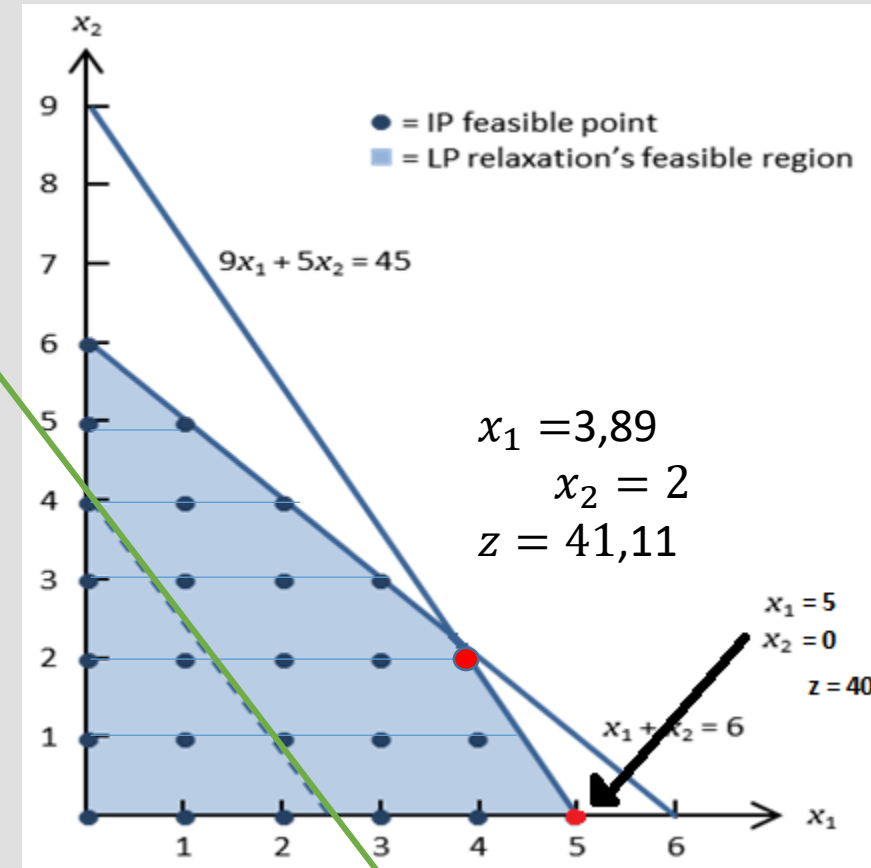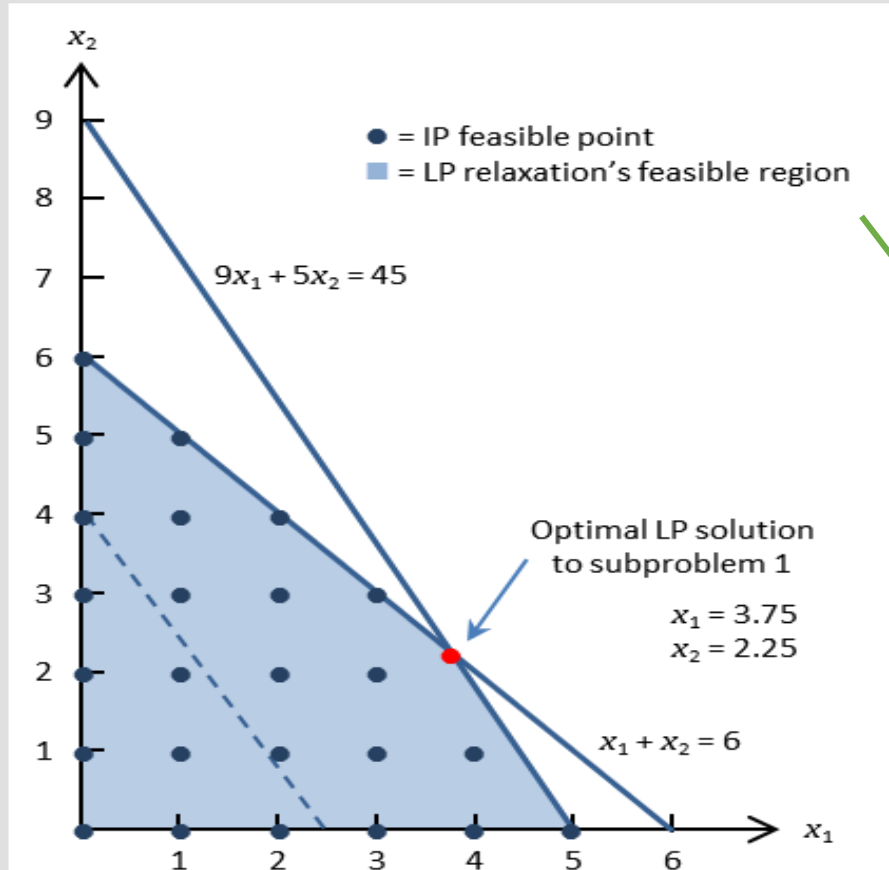
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