I am aware that any forms of cheating in this exam will result in a zero grade and a disciplinary investigation. I accept all rules and regulations regarding online exams. I give permission for the processing of my personal data as stated in the Clarification Text provided on the Faculty of Engineering website.

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IE 3035 Quiz I

26.04.2023

1. Wild west produces two types of cowboy hats. A type 1 hat three times as much labor time as type 2. If the all available labor time dedicated to Type 2 alone 450 type 2 hats a day. limits 100 Type 1, 300 type 2 for daily. The profit is $8 per Type 1 $5 per Type 2 Maximize profit for number of hats

Type 1 → x number of hat daily

Type 2 → y number of hat

objective function

max $8x+5y$

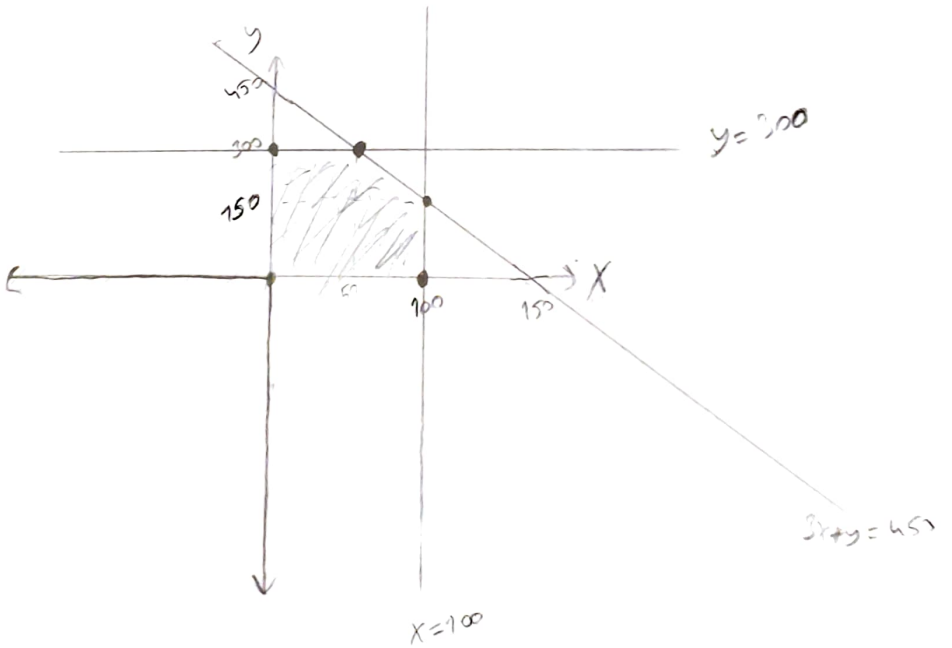
$3x+y \leq 450$

constraints

$3x+y \leq 450$

$x \leq 100$ $x \geq 0$

$y \leq 300$ $y \geq 0$



x	y	max
100	0	800
100	150	1550
50	300	1900
0	300	1500
0	0	0

x=50
y=300

maximum profit per day

1900 $