Section 5.3 Solutions

21] $P = 5x + 5y$

$2x + y \leq 10$

$x + 2y \leq 8$

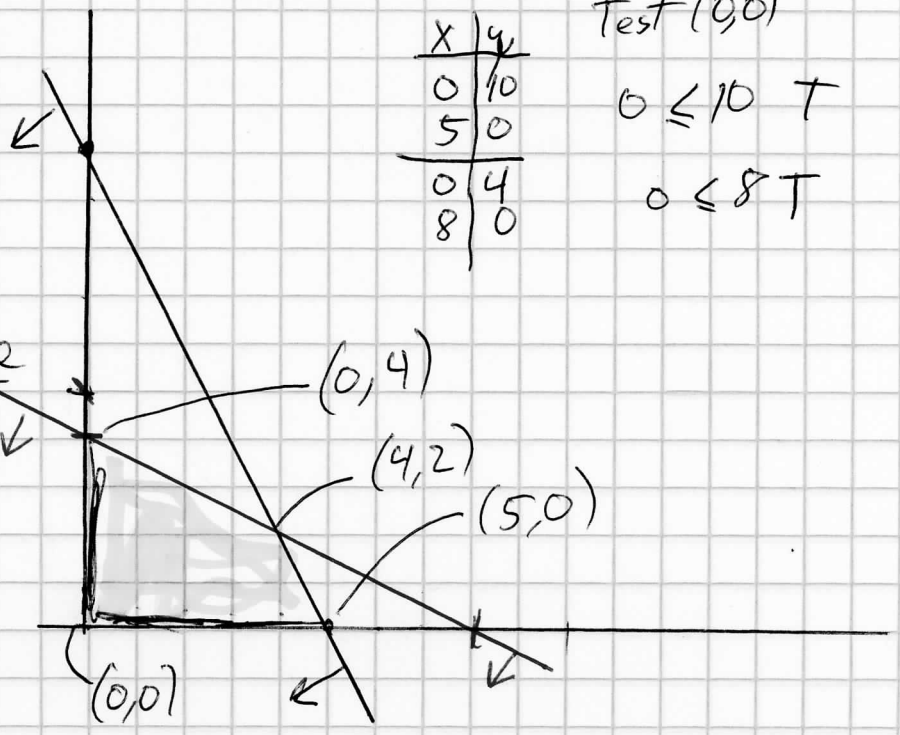
$x, y \geq 0$

x	y
0	10
5	0
0	4
8	0

Test (0,0)

$0 \leq 10$ T

$0 \leq 8$ T



Corner	Objective
(0,0)	0
(0,4)	20
(4,2)	30
(5,0)	25

53

	x Bus	y Van	
Students	40	8	≥ 400
Chaps	3	1	≤ 36
Cost ($)	1200	100	Minimize

Objective: $P = 1200x + 100y$

Constraints:

$40x + 8y \geq 400$

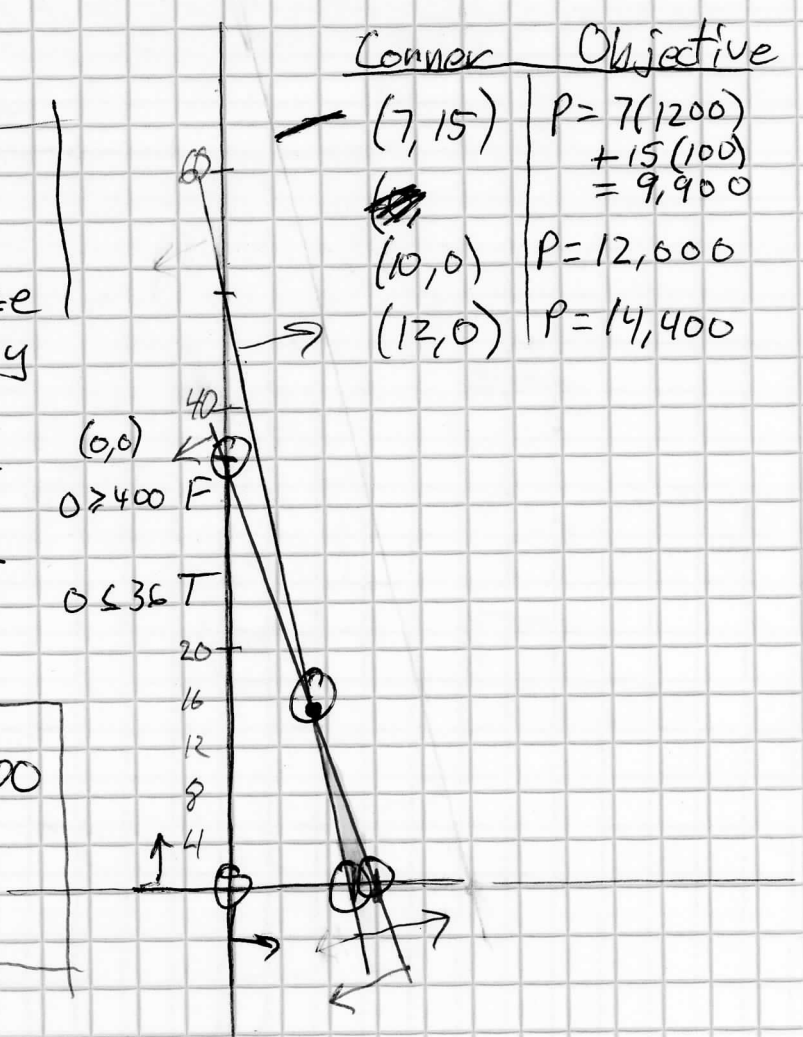
$3x + y \leq 36$

$x, y \geq 0$

x	y
0	50
10	0
0	36
12	0

(0,0) $0 \geq 400$ F

$0 \leq 36$ T



Corner	Objective
(7, 15)	$P = 7(1200) + 15(100) = 9,900$
(10,0)	$P = 12,000$
(12,0)	$P = 14,400$

Minimum Cost of $9,900 at

7 buses

15 vans