

Section 5.2

#35, 43, 55

35] $2x + y \leq 10$
 $x + y \leq 7$
 $x + 2y \leq 12$
 $x, y \geq 0$

x	y
0	10
5	0
0	7
7	0
0	6
12	0

Test (0,0)

$0 \leq 10$ T

$0 \leq 7$ T

$0 \leq 12$ T

Corner Points

(0,0), (0,6), (2,5), (3,4), (5,0)

43] $x - y \leq 0$
 $2x - y \leq 4$

x	y
0	0
2	2
0	-4
2	0

Test

(0,1) $-1 \leq 0$ T

(0,0) $0 \leq 4$ T

Corner Points

(0,0), (4,4), (8,12)

Unbounded Above

Corner Point at (8,12)

#55

	x Mix A	y Mix B	Minimum
Phosphoric	20	10	460
Nitrogen	30	30	960
Potash	5	10	220

$$20x + 10y \geq 460$$

$$30x + 30y \geq 960$$

$$5x + 10y \geq 220$$

$$x, y \geq 0$$

x	y
0	46
23	0
0	32
32	0
0	22
44	0

Test (0,0)

$$0 \geq 460 \quad F$$

$$0 \geq 960 \quad F$$

$$0 \geq 220 \quad F$$

Corner Points!

(0, 46)

(14, 18)

(20, 12)

(44, 0)

Unbounded Above

