

Orig. problem:

$$\begin{aligned} \max \quad & 7x + 3y \\ \text{s.t.} \quad & 2x + 5y \leq 28 \\ & 8x + 3y \leq 48 \\ & x, y \geq 0, \text{ integer} \end{aligned}$$

SA405 - AMP

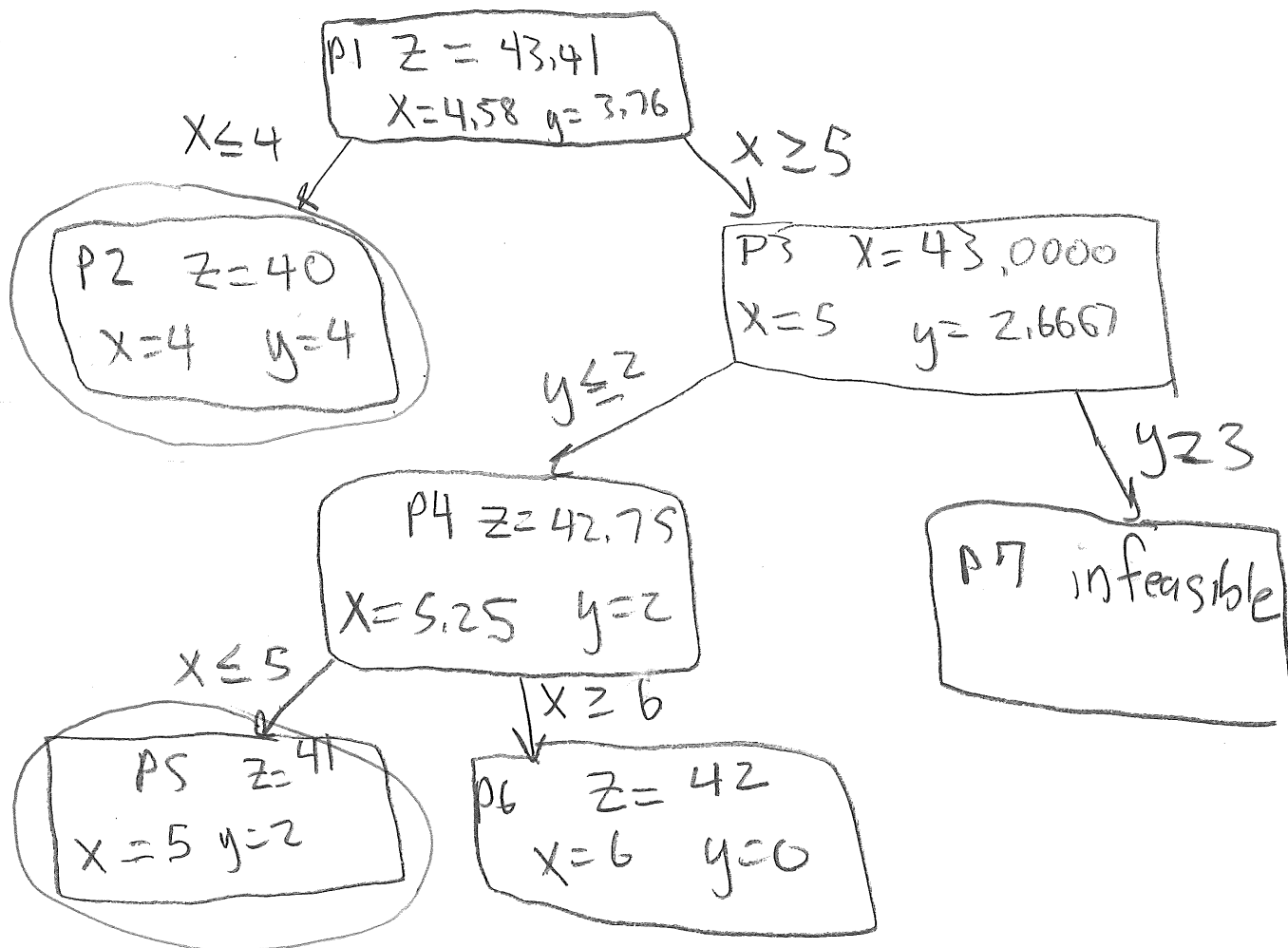
Lesson #19

Practice Problem #19

1 Problems

1. Exercises 14.2 and 14.3 in Rader Textbook. page 551

14.2 Depth first search

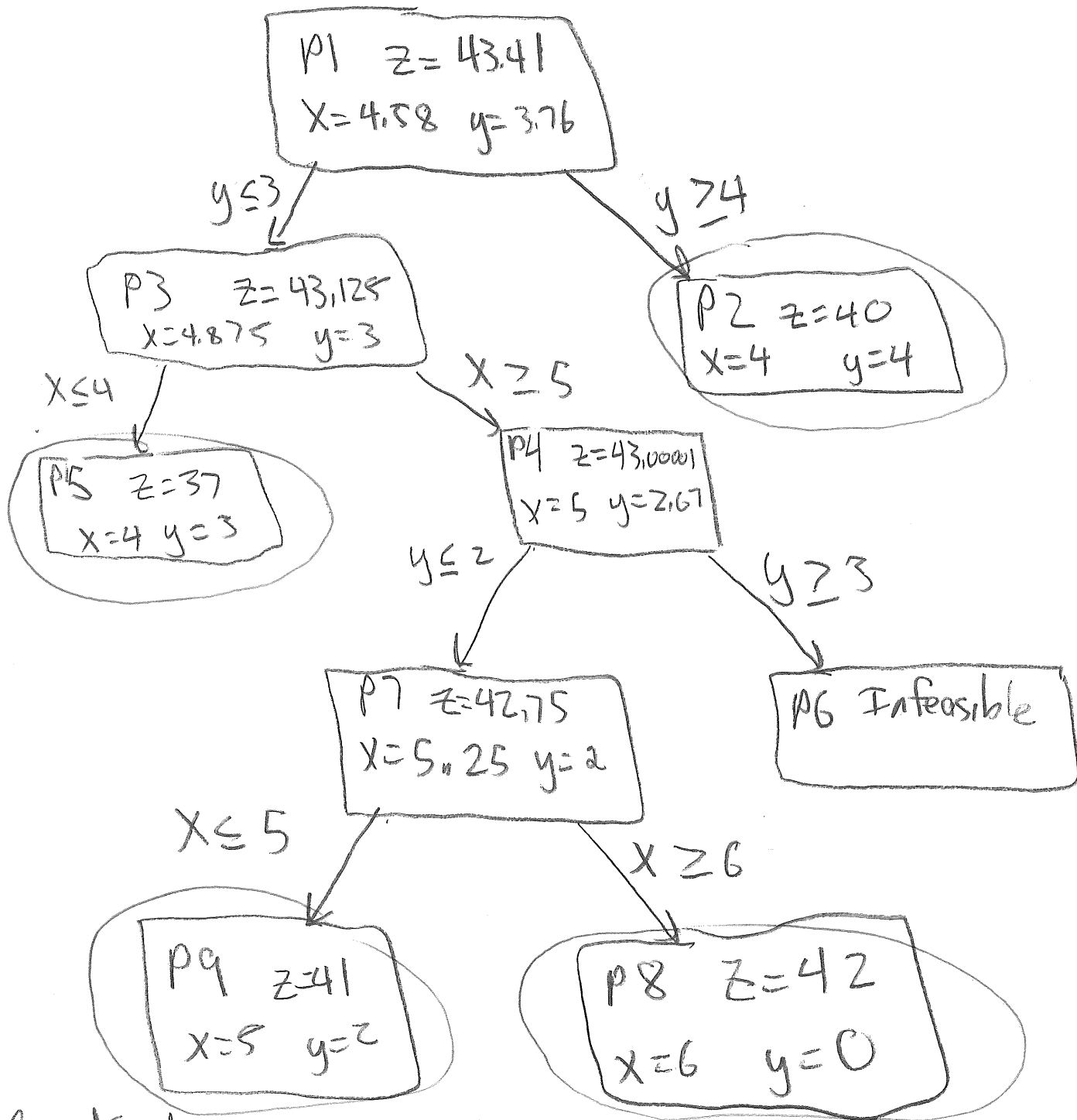


Bounds:

P1	UB = 43.41	LB = -∞
P2	UB = 43.41	LB = 40
P3	UB = 43.00	LB = 40
P4	UB = 42.75	LB = 40
P5	UB = 42.75	LB = 41
P6	UB = 42.75	LB = 42
P7	infeasible	

→ bounds within 1 unit
(more on back)

14.3 Best first search

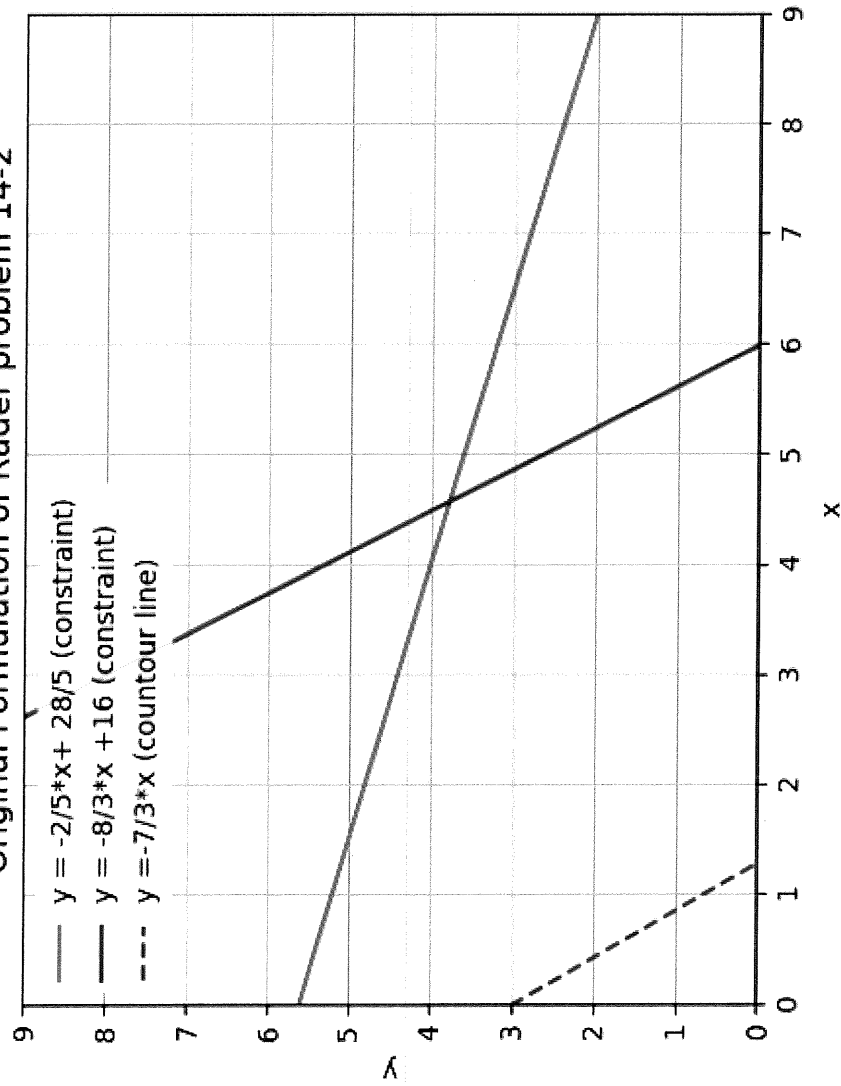


Bounds :

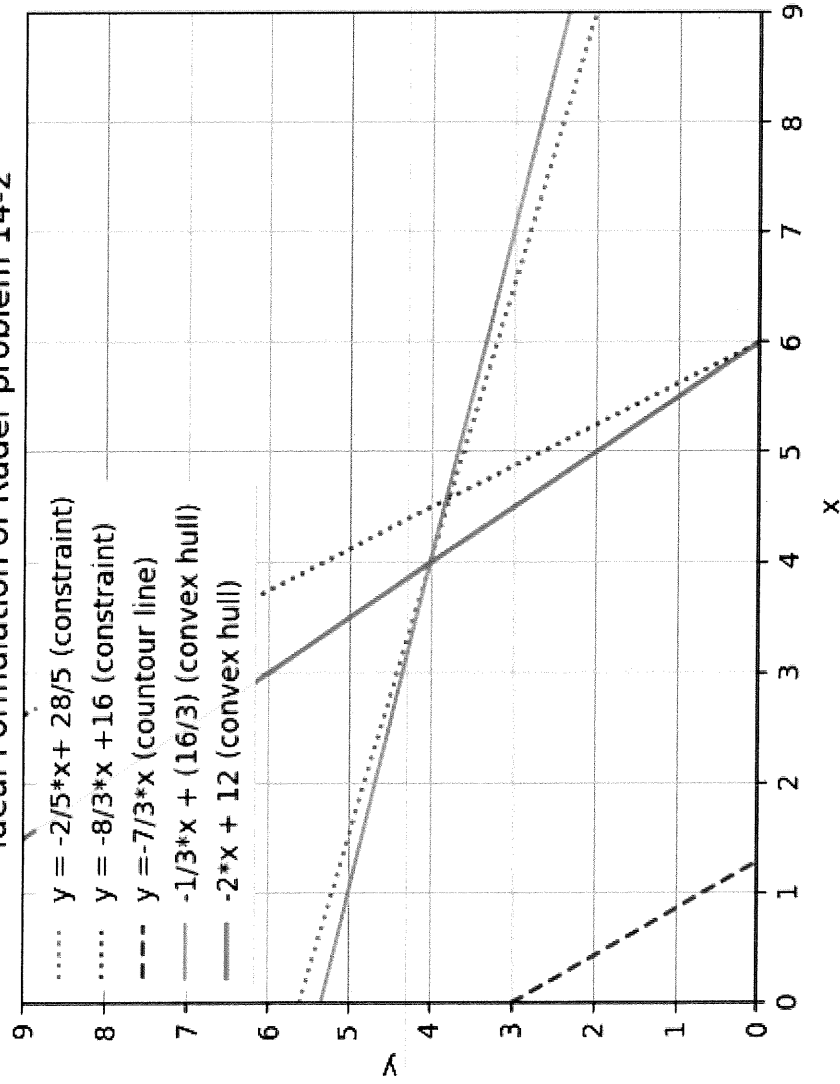
P1	UB= 43.41	LB= -∞
P2	UB= 43.41	LB= 40
P3	UB= 43.125	LB= 40
P4	UB= 43.00001	LB= 40
P5	no updates	
P6	no updates - Infeasible	
P7	UB= 42.75	LB= 40
P8	UB= 42.75	LB= 42

Bounds within
1 unit

Original Formulation of Rader problem 14-2



Ideal Formulation of Rader problem 14-2



Ideal Formulation of Rader problem 14-2

