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CS4150/PS10 – 3

/* Objective function */

min: a;

/* Variable bounds */

$a \geq 3 - m - b;$

$a \geq m - 3 + b;$

$a \geq 5 - 2m - b;$

$a \geq 2m - 5 + b;$

$a \geq 7 - 3m - b;$

$a \geq 3m - 7 + b;$

$a \geq 11 - 5m - b;$

$a \geq 5m - 11 + b;$

$a \geq 14 - 7m - b;$

$a \geq 7m - 14 + b;$

$a \geq 15 - 8m - b;$

$a \geq 8m - 15 + b;$

$a \geq 19 - 10m - b;$

$a \geq 10m - 19 + b;$



```
1  /* Objective function */
2  min: a;
3  /* Variable bounds */
4  a >= 3 - m - b;
5  a >= m - 3 + b;
6
7  a >= 5 - 2m - b;
8  a >= 2m - 5 + b;
9
10 a >= 7 - 3m - b;
11 a >= 3m - 7 + b;
12
13 a >= 11 - 5m - b;
14 a >= 5m - 11 + b;
15
16 a >= 14 - 7m - b;
17 a >= 7m - 14 + b;
18
19 a >= 15 - 8m - b;
20 a >= 8m - 15 + b;
21
22 a >= 19 - 10m - b;
23 a >= 10m - 19 + b;
```

LPSolve IDE - 5.5.2.5 - C:\Users\drummduck\OneDrive\Documents\PS10-3.lp

File Edit Search Action View Options Help

Source Matrix Options Result

Objective Constraints Sensitivity

| | |
|-----------|-------------------|
| Variables | result |
| | 0.571428571428572 |
| a | 0.571428571428572 |
| m | 1.71428571428571 |
| b | 1.85714285714286 |

The optimum value for m is 1.71428571428571 and the optimum value for b is 1.85714285714286.

The maximum absolute error calculated by the solver is 0.571428571428572.