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P1

ServA = x

Serv = y

MIN F = 100x + 150y

$500x + 800y \geq 10000$

$100x + 150y \leq 3000$

$10x + 15y \leq 200$

$x, y \geq 0$

P2

Proc1 = x

Proc2 = y

Proc3 = z

MIN F = 5x + 7y + 4z

$10x + 15y + 8z \geq 500$

$x \leq 40$

$y \geq 30$

$x, y, z \leq 60$

$x, y, z \geq 0$

P3

Alta = x

Media = y

Baixa = z

MAX F = 10x + 7y + 4z

$2x + 1.5y + yz \leq 100$

$x \geq 20$

$y + z \leq 50$

$x \leq 2y$

$x, y, z \geq 0$

P4

jobX = x

jobY = y

jobZ = z

MAX F = 8x + 6y + 10z

$$5x + 3y + 6z \leq 120$$

$$2x + 3y + 1z \leq 60$$

$$x \geq 5$$

$$y \geq 3$$

$$z \leq x + y$$

$$x, y, z \geq 0$$

P5

$$\text{alpha} = x$$

$$\text{beta} = y$$

$$\text{MIN } F = 200x + 300y$$

$$50x + 40y \geq 200$$

$$30x + 60y \geq 180$$

$$20x + 30y \geq 150$$

$$200x + 300y \leq 3000$$

$$x \leq 2y$$

$$x, y \geq 0$$

P6

$$\text{padrao} = x$$

$$\text{premium} = y$$

$$\text{MIN } F = 0.05x + 0.10y$$

$$x + y = 500$$

$$x \geq 150$$

$$x \geq 100$$

$$100x + 200y \geq 80000$$

$$x, y \geq 0$$

P7

$$\text{tipo1} = x$$

$$\text{tipo2} = y$$

$$\text{MAX } F = 10x + 15y$$

$$2x + 3y \leq 30$$

$$4x + 2y \leq 40$$

$$500x + 700y \leq 5000$$

$$10x + 15y \geq 100$$

$$x, y \geq 0$$

P8

google = x

facebook = y

linkedin = z

$$\text{MAX } F = x + y + z$$

$$0.5x + 0.3y + z \leq 1000$$

$$0.1x + 0.05y + 0.2z \geq 50$$

$$x \geq 2y$$

$$y \leq 500$$

$$x, y, z \geq 0$$

P9

altaMem = x

altaCpu = y

$$\text{MIN } F = 20x + 25y$$

$$10x + 8y \geq 100$$

$$32x + 16y \geq 400$$

$$4x + 8y \geq 200$$

$$x, y \geq 0$$

P10

local = x

nuvem = y

$$0.01x + 0.05y \leq 200$$