

Manufacturing A company manufactures inkjet printers and laser printers. The company can make a total of 60 printers per day, and it has 120 labor-hours per day available. It takes 1 labor-hour to make an inkjet printer and 3 labor-hours to make a laser printer. The profit is \$45 per inkjet printer and \$65 per laser printer. How many of each type of printer should the company make to maximize its daily profit?

Variables: $x = \text{inkjet}$ $y = \text{laser}$

1. Number of printers that can be made in a day
2. Number of hours that can be used to make the printers
3. Profit

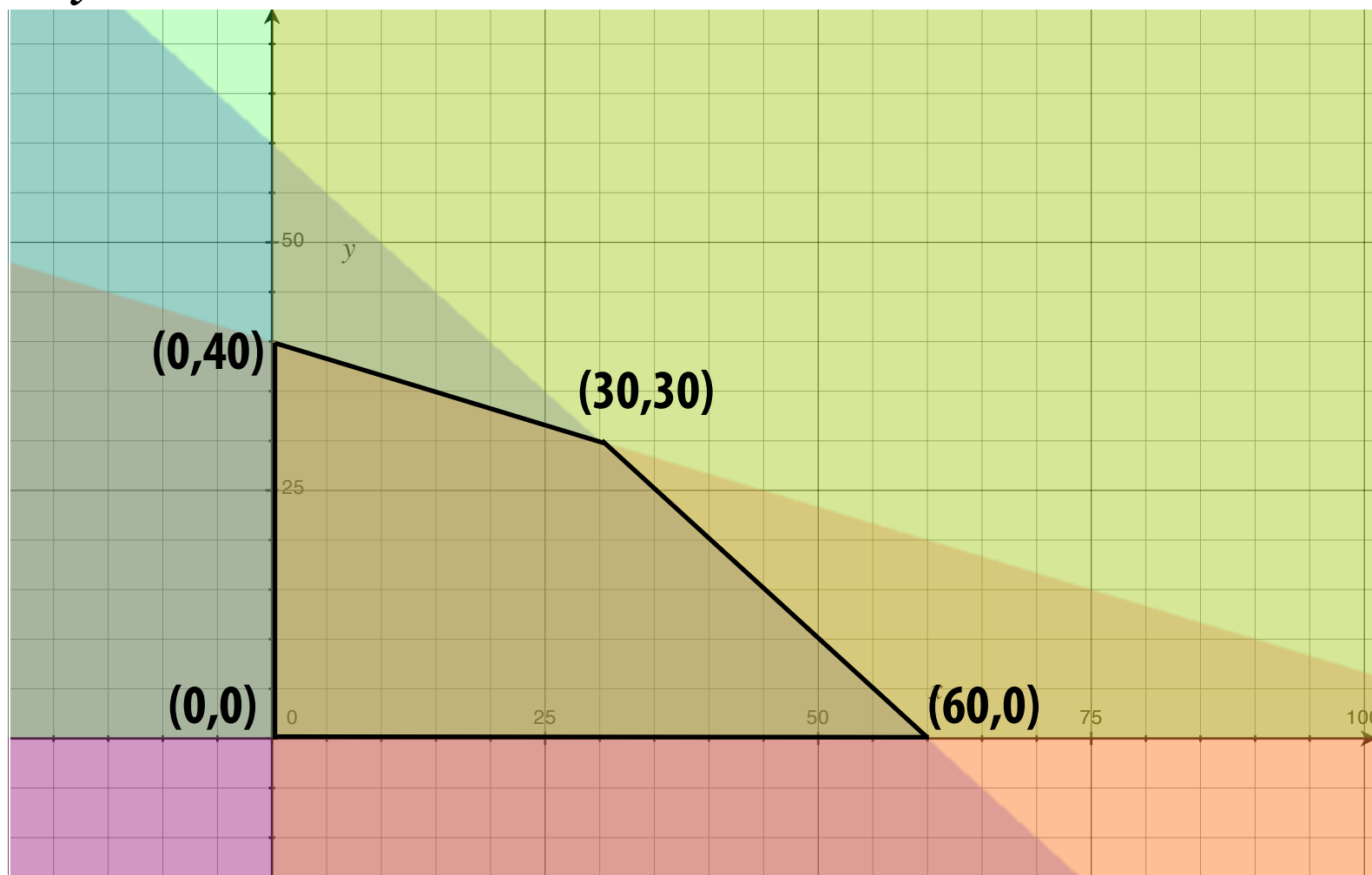
$$x + y \leq 60$$

$$x + 3y \leq 120$$

$$x \geq 0$$

$$y \geq 0$$

$$P(x, y) = 45x + 65y$$



$$P(0,40) = 45(0) + 65(40) = 2600$$

$$P(30,30) = 45(30) + 65(30) = 3300 \text{ MAX}$$

$$P(60,0) = 45(60) + 65(0) = 2700$$