

In Exercises 25 through 28, solve the given LP-problem.

25. Maximize: $z = x_1 + 2x_2$

Subject to: $x_1 + x_2 \leq 2$
 $10x_1 + x_2 \leq 10$
 $x_1, x_2 \geq 0$

26. Maximize: $z = 3x_1 + x_2$

Subject to: $x_1 \leq 3$
 $x_1 + 5x_2 \leq 5$
 $x_1, x_2 \geq 0$

27. Minimize: $z = 2x_1 + 3x_2$

Subject to: $x_1 + x_2 \geq 3$
 $4x_1 + x_2 \geq 4$
 $x_1 + 4x_2 \geq 4$
 $x_1, x_2 \geq 0$

28. Minimize: $z = 10x_1 + 5x_2$

Subject to: $x_1 + x_2 \geq 5$
 $10x_1 + x_2 \geq 10$
 $x_1 + 15x_2 \geq 15$
 $x_1, x_2 \geq 0$