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: \( x_1 + x_2 \geq 5 \)
               \( 10x_1 + x_2 \geq 10 \)
               \( x_1 + 15x_2 \geq 15 \)
               \( x_1, x_2 \geq 0 \)