

Problem 1. (10pt) As accurately as possible, sketch the feasible region given by the constraints

$$x + y \le 10$$
$$2x - y \ge 2$$
$$x, y \ge 0$$

Is this region bounded or unbounded?

Problem 2. (10pt) As accurately as possible, sketch the feasible region given by the constraints

$$x + y \ge 4$$
$$\frac{1}{2}x + 3y \ge 7$$
$$x, y \ge 0$$

Is this region bounded or unbounded?