

Name: _____

MATH 108

Fall 2022

HW 17: Due 12/01

"There is no branch of mathematics, however abstract, which may not some day be applied to phenomena of the real world."

–Nikolai Lobachevsky

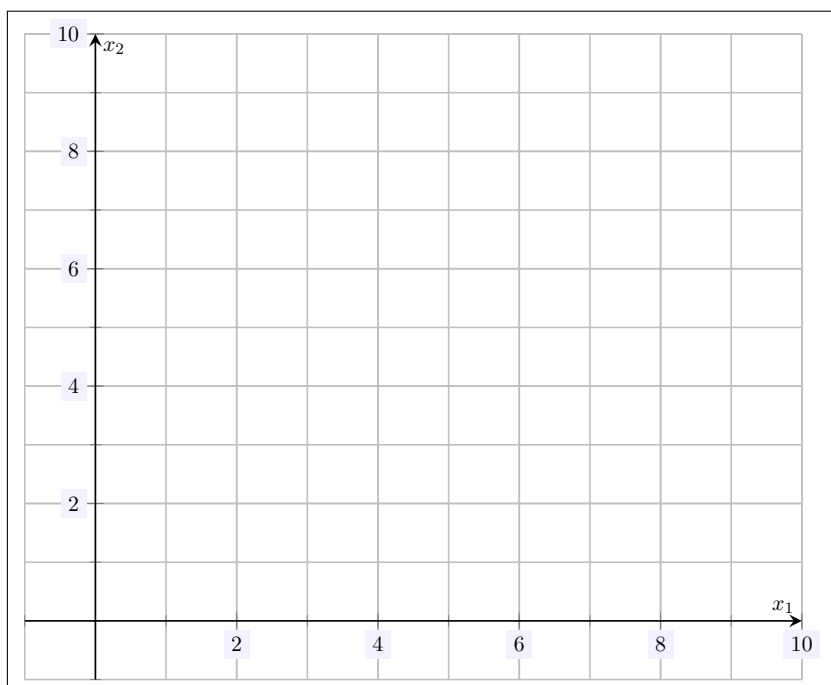
Problem 1. (10pt) Showing all your work and as accurately as possible, plot the region given by the inequalities below:

$$x_1 + x_2 \leq 5$$

$$x_1 \leq 3$$

$$x_1, x_2 \geq 0$$

Is the region bounded or unbounded?



Problem 2. (10pt) Showing all your work and as accurately as possible, plot the region given by the inequalities below:

$$x_1 + 2x_2 \geq 7$$

$$x_1 + x_2 \geq 5$$

$$x_1, x_2 \geq 0$$

Is the region bounded or unbounded?

