
MUSA 74
Fall 2024

Transition to Upper-Division Mathematics
MUSA Staff

Homework 1 - Set Theory

MUSA 74, Fall 2024
Due Sunday, September 8th at 11:59pm

Instructions: This homework should to be submitted to Gradescope as a pdf file. Please work on separate sheets of paper and scan them, or type it up. We love it when students work together to complete assignments - if you choose to do this, please make sure to credit the person you worked with at the top of your page.

Problems:

1. Find sets X and Y such that X is not a subset of Y and Y is not a subset of X .
2. Suppose X and Y are finite sets where $|X| = a$, $|Y| = b$, and $X \cap Y = \emptyset$. How many elements are in $X \cup Y$?