

Name: _____

Date: _____

Math 2710 — Worksheet

2026-09-10

Show your work. Write your final answer clearly.

1. Decide if the following statement is true or false. Explain.

$$\{(x, y) \in \mathbb{R}^2 : x - 1 = 0\} \subseteq \{(x, y) \in \mathbb{R}^2 : x^2 - x = 0\}.$$

2. Let $A = \{1, 2\}$ and $B = \{a, b, c\}$. How many subsets does $A \times B$ have?

3. Let A and B be the same sets as in the previous problem. How many subsets does $\mathcal{P}(A \times B)$ have?