

Math 8 - Quiz 6

Name:

Section:

Problem 1. Let A and B be sets. Give a definition for the set $A \times B$, the *cartesian product* of A and B .

Problem 2. Suppose $A \subseteq C$ and $B \subseteq D$. Prove that $A \times B \subseteq C \times D$.

Problem 3. Let A be a set. One of the following is true and the other is false. Decide which one is true and briefly explain why.

- $A \times \emptyset = A$
- $A \times \emptyset = \emptyset$