

**Theorem** (2.2.16b). *Let  $A$  and  $B$  be sets.  $A \subseteq (A \cup B)$*

*Proof.* All of the elements in  $A$  are a subset of  $A \cup B$  by the definition of set union. Therefore it trivially follows that  $A \subseteq (A \cup B)$ . ■