

F04 Set formalization

Course in Semantics · Ling 531 / 731

University of Kansas

1. Which of the following describes an abstracted set?
 - It takes an entity and gives us the abstract versions of them so we can avoid dealing with them directly.
 - It expresses a generalization that keeps us from having to list specific examples.
 - It removes details or attributes of objects so we can focus on details of greater importance.
2. Find a map of Europe, and fill in the following sets to make them equivalent, given the set E of European countries. There may be multiple answers required.

- (1) $\{ x \in E \mid x \text{ borders Switzerland} \} =$
 $\{ \text{France, Germany, Liechtenstein, } \underline{\hspace{10em}} \}$
- (2) $\{ y \in E \mid \text{The Rhine flows through or along } y \} =$
 $\{ \text{Germany, France, Switzerland, } \underline{\hspace{10em}} \}$
- (3) $\{ z \in E \mid z \text{ borders the Baltic Sea} \} =$
 $\{ \text{Russia, Estonia, Latvia, Lithuania, } \underline{\hspace{10em}} \}$

3. Assume for this problem that our domain D consists of the following sounds:

$\{ e, h, \gamma, \varepsilon, p, i, y, \text{æ}, t, k^h \}$.

Given D, write the meaning of *vowel* in the following ways:

1. in denotation brackets
 2. list the members of the set
 3. abstracted set
4. Now, write the meaning of *consonant* in the same way.
 1. in denotation brackets
 2. list the members of the set
 3. abstracted set