

F18 Exercise

Course in Semantics · Ling 531 / 731
McKenzie · University of Kansas

Key

$$\text{Let } a = \begin{bmatrix} 1 & \rightarrow & \text{Tom} \\ 2 & \rightarrow & \text{Becky} \\ 3 & \rightarrow & \text{Sam} \\ 4 & \rightarrow & \text{Mark} \end{bmatrix} \quad \text{Let } b = \begin{bmatrix} 1 & \rightarrow & \text{Yelena} \\ 2 & \rightarrow & \text{Dmitri} \\ 3 & \rightarrow & \text{Jamila} \\ 4 & \rightarrow & \text{Turgun} \end{bmatrix}$$

1. Assume assignments a, b. For each of the following, apply the proper assignment function.

1. $a(1) = \underline{\text{Tom}}$ READ: a of 1 equals Tom
2. $a(3) = \underline{\text{Sam}}$ READ: a of 3 equals Sam
3. $b(2) = \underline{\text{Dmitri}}$
4. $b(4) = \underline{\text{Turgun}}$
5. $a(5) = \underline{\text{undefined}}$

Number 5. is a trick question, because you expect the answer to be in the range of one of the functions, but this answer isn't. The number 5 is not in the domain of assignment a, which is $\{ 1, 2, 3, 4 \}$. Thus, it cannot be plugged into a, and does not get mapped to a value in the range of assignment a. Thus, $a(5)$ is undefined. Consequently, any expression containing $a(5)$ with this assignment will be uninterpretable.

2. Assume assignments a, b. Replace the underlined expression in each proposition with its value in the assignment function.

1. $a(1)$ paddled a boat Tom paddled a boat (bec. $a(1) = \text{Tom}$)
2. $a(3)$ has two dogs Sam has two dogs
3. I gave $b(3)$ a hat I have Jamila a hat
4. $a(2)$ is $b(2)$'s friend Becky is Jamila's friend
5. We can't see $a(1)$ with $b(9)$ <undefined> since $9 \notin \text{dom}(b)$
6. $b(4)$ likes $b(2)$ but not $b(1)$ Turgun likes Dmitri but not Yelena

3. Create an assignment function using five characters from a story (film, book, play, joke). Write a paragraph of fan fiction using only $f(n)$ to indicate the protagonists.