

# F09 Ordered pairs exercise

Course in Semantics · Ling 531 / 731

University of Kansas

1. Write the following function, which is in list notation, as a set of ordered pairs.

Douglas	→	Lawrence
Shawnee	→	Topeka
Wyandotte	→	Kansas City
Sedgwick	→	Wichita
Johnson	→	Olathe
Gove	→	Gove City

2. (a) What is the most probable domain of the first member of each pair?
- (b) What is the most probable domain of the second member of each pair?
- (c) What is the Cartesian product of the two sets?

Write the following (part of a) characteristic function as a set of ordered pairs.

Joey	→	1
Monica	→	1
Leonard	→	0
Penny	→	0
Phoebe	→	1
Jerry	→	0

3. Write the following set of ordered pairs as a function in  $\lambda$ -notation. (Hint: It isn't quite a characteristic function. Hint 2: Think about formulating the abstracted set of ordered pairs first.)

{  $\langle 1924, \text{Chamonix} \rangle$ ,  $\langle 1928, \text{St Moritz} \rangle$ ,  $\langle 1932, \text{Lake Placid} \rangle$ ,  
 $\langle 1936, \text{Garmisch-Partenkirchen} \rangle$ ,  
 $\langle 1948, \text{St Moritz} \rangle$ ,  $\langle 1952, \text{Oslo} \rangle$ ,  $\langle 1956, \text{Cortina d'Ampezzo} \rangle$ ,  $\langle 1960, \text{Squaw Valley} \rangle$ ,  
 $\langle 1964, \text{Innsbruck} \rangle$ ,  $\langle 1968, \text{Grenoble} \rangle$ ,  $\langle 1972, \text{Sapporo} \rangle$ ,  $\langle 1976, \text{Innsbruck} \rangle$ ,  
 $\langle 1980, \text{Lake Placid} \rangle$ ,  $\langle 1984, \text{Sarajevo} \rangle$ ,  $\langle 1988, \text{Calgary} \rangle$ ,  
 $\langle 1992, \text{Albertville} \rangle$ ,  $\langle 1994, \text{Lillehammer} \rangle$ ,  $\langle 1998, \text{Nagano} \rangle$ ,  $\langle 2002, \text{Salt Lake City} \rangle$ ,  
 $\langle 2006, \text{Torino} \rangle$ ,  $\langle 2010, \text{Vancouver} \rangle$ ,  $\langle 2014, \text{Sochi} \rangle$ ,  $\langle 2018, \text{PyeongChang} \rangle$  }