

Math 2283 - Introduction to Logic

Quiz #9 - 2010.10.13

Name: _____

Remember that the relative product of the relations R and S , denoted R/S , is defined as

$$xR/Sy \longleftrightarrow \exists_z xRz \wedge zSy$$

Consider the following relations:

$$xRy \longleftrightarrow x + 2y = 4, \quad xSy \longleftrightarrow x + y > 0$$

Is the relative product relation R/S reflexive? Explain your answer fully. You may assume that the domain of discourse is the real numbers.