381 (rulers) Rulers are formed as follows. A vertical stroke | is a ruler. If you append a horizontal stroke — and then a vertical stroke | to a ruler you get another ruler. Thus the first few rulers are | , |—| , |—|—| , |—|—|—| , and so on. No two rulers formed this way are equal. There are no other rulers. What axioms are needed to define bunch *ruler* consisting of all and only the rulers?

After trying the question, scroll down to the solution.

§ “|”, *ruler*;“—|”: *ruler*
“|”, *B*;“—|”: *B* ⇒ *ruler*: *B*