

# Example To Be Discussed

There is a standard style of exercise often given at the start of a course in classical logic, to convert arguments in natural language into formal versions and establish their correctness. These are sometimes a bit strained, because classical logic was designed primarily for mathematical applications, and natural language is broader than that. Still, these exercises can be good workouts. Here is a simple example.

Convert the following into symbolic form, and establish its correctness, using the abbreviations suggested (problem adapted from Copi)

If rain continues, then the river rises. If rain continues and the river rises, then the bridge will wash out. If continuation of rain will wash the bridge out, then a single road is not sufficient for the town. Either a single road is sufficient for the town or the traffic engineers have made a mistake. Therefore the traffic engineers have made a mistake. [*C*—rain continues; *R*—the river rises; *B*—the bridge washes out; *S*—a single road is sufficient for the town; *M*—the traffic engineers have made a mistake.]