

MATHEMATICS 403
FOUNDATIONS OF MATHEMATICS
SPRING 2020

Portfolio Project

Problem 1

Is the statement

$$[(P \rightarrow (Q \wedge \neg R)) \wedge (\neg S \rightarrow (P \vee \neg V)) \wedge R \wedge V] \rightarrow S$$

a tautology? If so, give a formal proof that it is without using a truth table.