

HOMEWORK 2  
MATH 3345 – SPRING 2022 – KUTLER

Please complete the following problems on your own paper. Solutions should be written clearly, legibly, and with appropriate style.

1. [**Falkner Section 2 Exercise 2**] Let  $P$ ,  $Q$  and  $R$  be logical sentences. Prove the first Distributive Law

$$P \wedge (Q \vee R) \text{ is logically equivalent to } (P \wedge Q) \vee (P \wedge R)$$

in two ways:

- (a) By means of a truth table;
- (b) By means of an explanation in words.