SIT111 - Task 1.2P
Boolean Expression to Truth Table

Overview

This task focuses on constructing truth tables for given Boolean expressions. Truth tables can be used for forms containing any number of variables. If there are n variables, there will be 2^n rows corresponding to the 2^n possible assignments of truth values to the n variables. We proceed systematically through the possibilities by letting the truth assignments of the variables give successively the binary representations of the integers 0 through 2^n-1.

Task requirements

a. Go through week 1 class materials on Cloud Deakin & complete the practice problems in the learning sessions for week 1

b. Read the task instructions

Task Instructions

Complete the truth tables for the following Boolean expressions. Submit to OnTrack as a PDF file.

a. NOT (P) OR NOT (Q)

P	Q	NOT (P)	NOT (Q)	NOT (P) OR NOT (Q)
0	0			
0	1			
1	0			
1	1			

b. (P AND Q) OR (NOT (P AND Q))

P	Q	P AND Q	NOT (P AND Q)	(P AND Q) OR (NOT (P AND Q))
0	0			
0	1			
1	0			
1	1			

c. P AND (Q OR R)

P	Q	R	Q OR R	P AND (Q OR R)
0	0	0		
0	0	1		
0	1	0		
0	1	1		
1	0	0		
1	0	1		
1	1	0		
1	1	1		