

Quiz 2 Correction

John J Li

February 23, 2021

Question 5:

Given the following equation, what are the values contained in the numeric sum-of-products shorthand equivalent?

$$E(x, y, z) = (x + y)' + (x \oplus z)y \text{ is equivalent to } E(x, y, z) = \sum m(?)$$

x	y	z	$(x+y)'$	$(x \oplus z)y$	$E(x,y,z)$
0	0	0	1	0	1
0	0	1	1	0	1
0	1	0	0	0	0
0	1	1	0	1	1
1	0	0	0	0	0
1	0	1	0	0	0
1	1	0	0	1	1
1	1	1	0	0	0

Correct answer: 0, 1, 3, 6

Reason why I answered incorrectly on the quiz:

I thought the XOR was true only when both inputs are the same. Obviously that was wrong and now I know XOR is true only when both inputs do not equal each other.