hermiæfing 4

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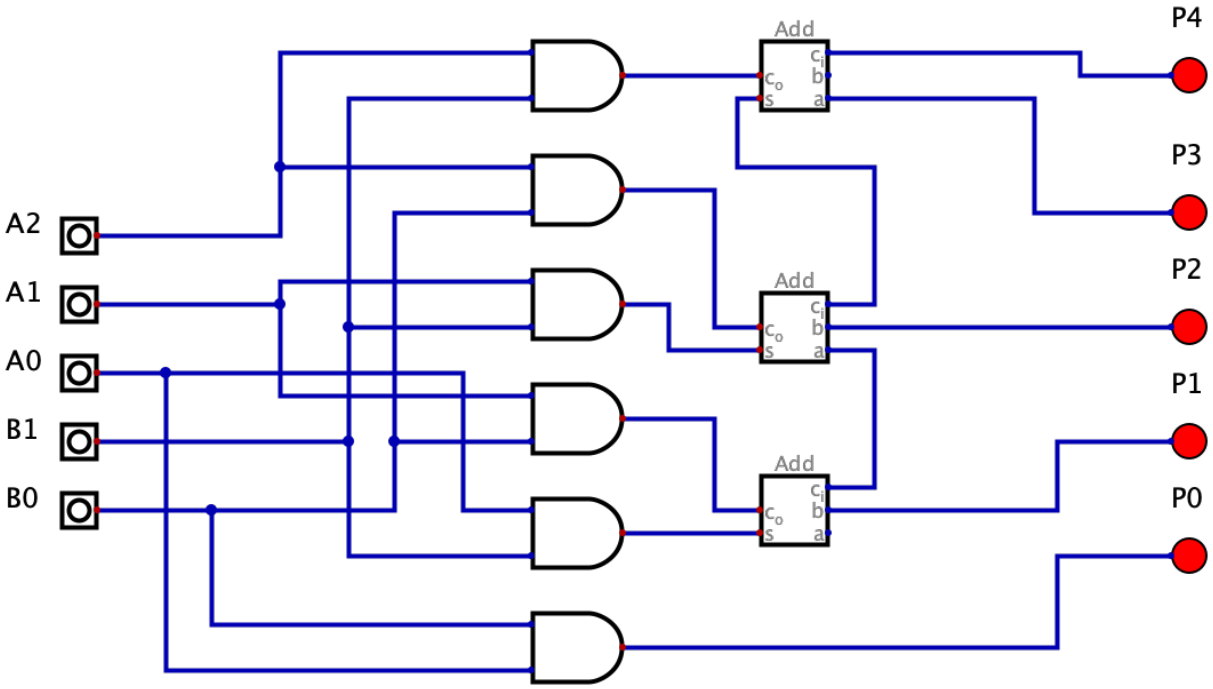
Verkefni 1

2^4	2^3	2^2	2^1	2^0
		A_2	A_1 B_1	A_0 B_0
	$B_1 * A_2$	$A_2 * B_0$ $B_1 * A_1$	$A_1 * B_0$ $B_1 * A_0$	$A_0 * B_0$
C_3	$B_1 * A_2 + C_2$	$A_2 * B_0 + B_1 * A_1 + C_1$	$A_1 * B_0 + B_1 * A_0$	$A_0 * B_0$

Verkefni 2

$P_4 = C_3$
$P_3 = B_1 * A_2 + C_2$
$P_2 = A_2 * B_0 + B_1 * A_1 + C_1$
$P_1 = A_1 * B_0 + B_1 * A_0$
$P_0 = A_0 * B_0$

Verkefni 3



Skil

The task was to design a circuit that multiplies two complex numbers together. First, a three-bit number was multiplied by a two-bit number and arranged in a corresponding table. Then, the boolean expressions were recorded. Finally, I drew the circuits in Cedar Logic and tested their functionality. The initial stages of the project went smoothly and it was easy to multiply and organize the numbers into the table. From there, I could simply copy and paste the boolean expressions. Next, I drew the circuits in Cedar Logic and it went very well, mainly trying not to make it too crowded. I saw no reason to have two images where everything was off in the first and the functionality was tested in the next, so I merged them. The first output does not need to go through an adder. The functionality was tested and the result was correct compared to the result from the boolean expressions.