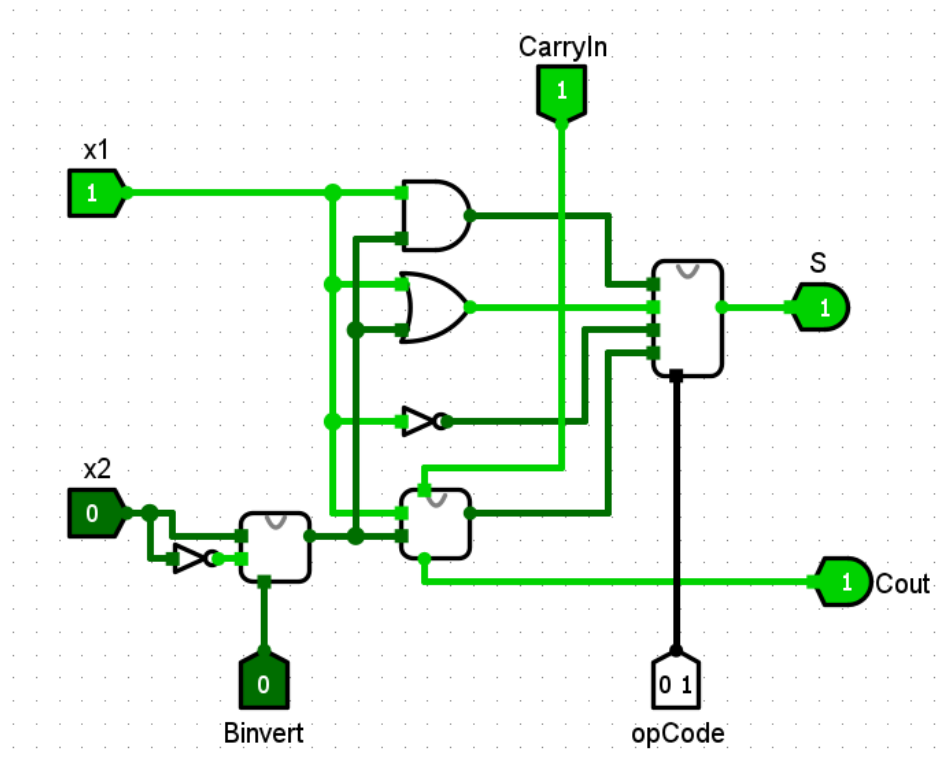


Circuito 1



Circuito 2

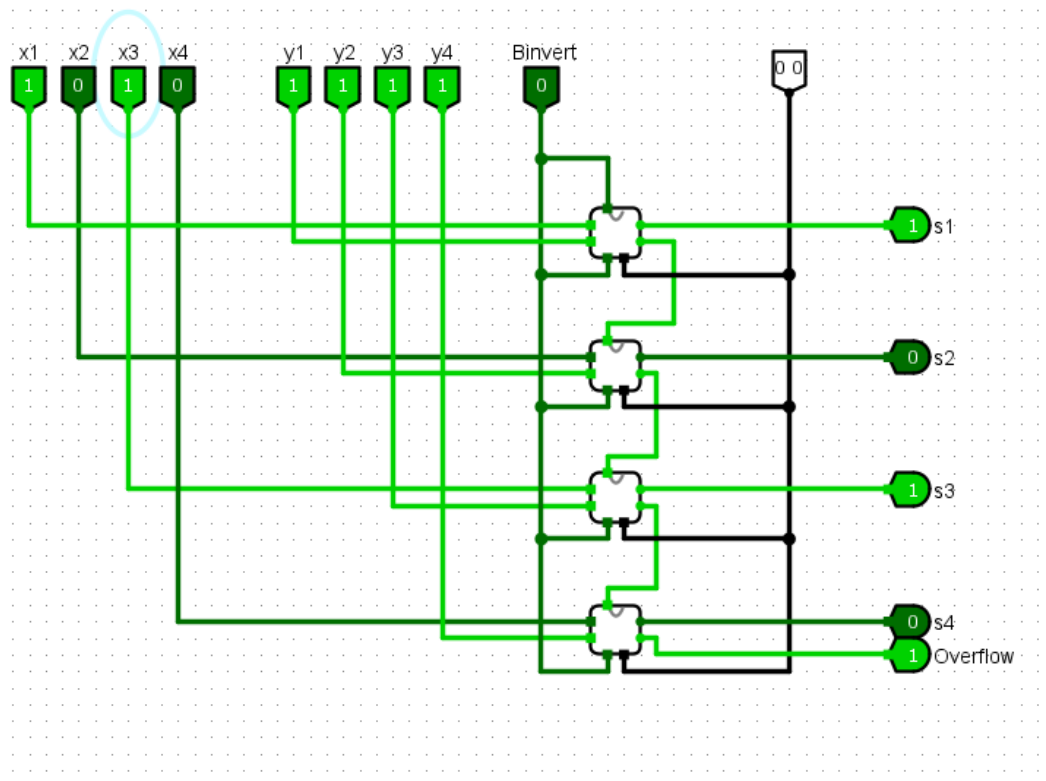
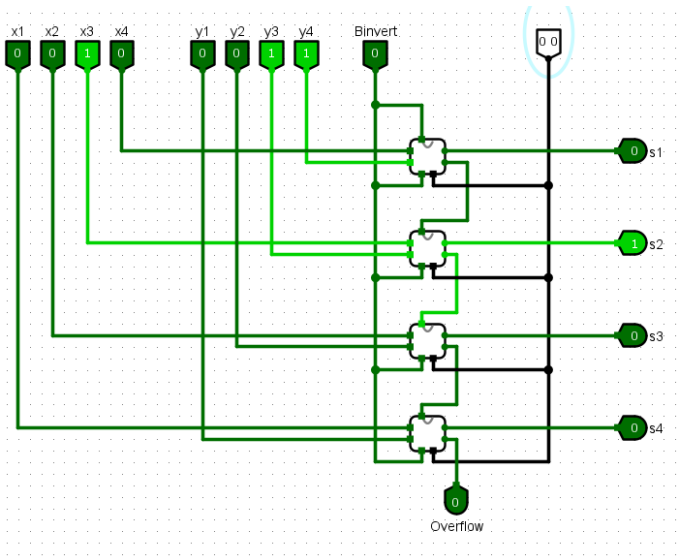


Tabela de resultados unidade 4bits

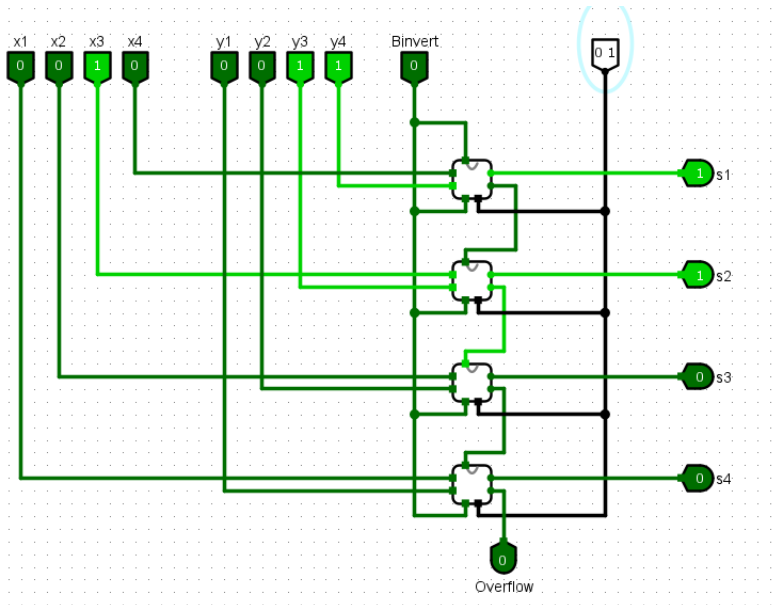
| Instrução Realizada | Binário | Hexa | Resultado Binário |
|---------------------|--------------|----------------------|-------------------|
| AND (A, B) | 0010 0001 00 | 0000 1000 0100=0x084 | 0000 |
| OR (A, B) | 0010 0011 01 | 0000 1000 1101=0x8D | 0011 |
| SOMA (A, B) | 0010 0011 11 | 0000 1000 1111=0x8F | 0101 |
| NOT (A) | 1100 10 | 0000 0011 0010=0x32 | 0011 |
| AND (B, A) | 1101 1100 00 | 0011 0111 0000=0x37 | 1100 |

Comprovações dos testes acima:

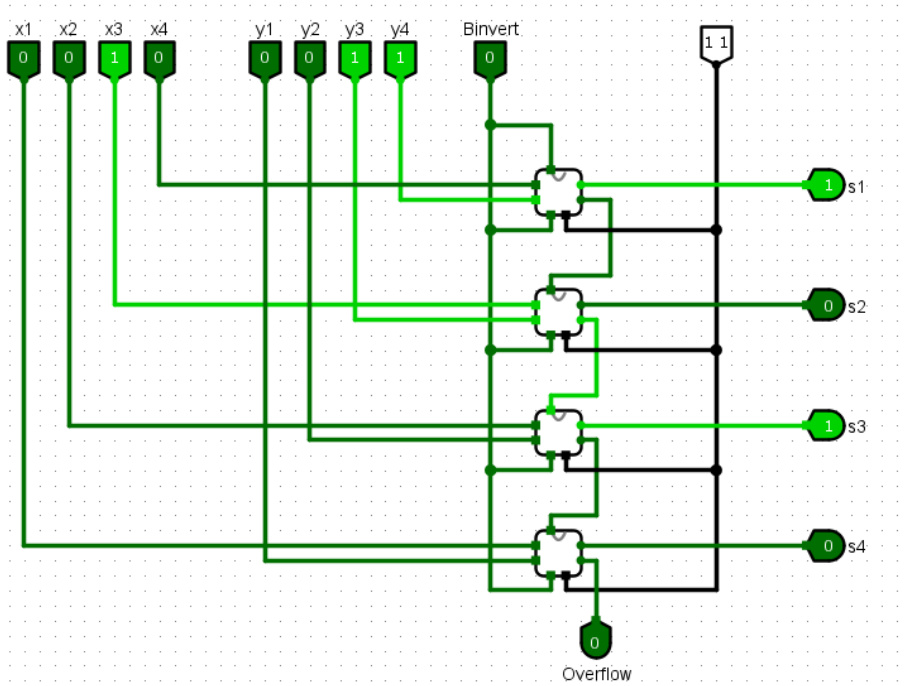
1



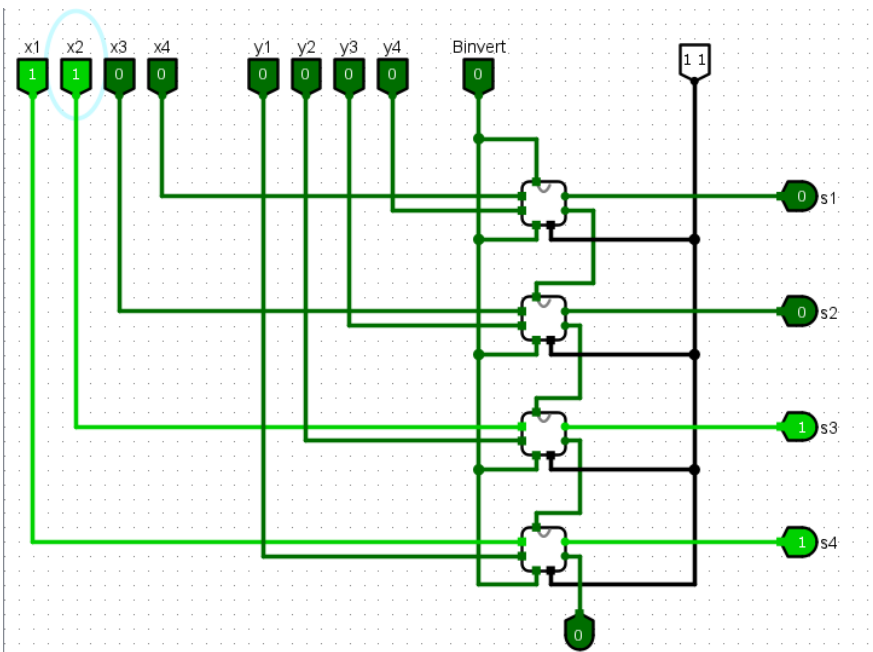
2



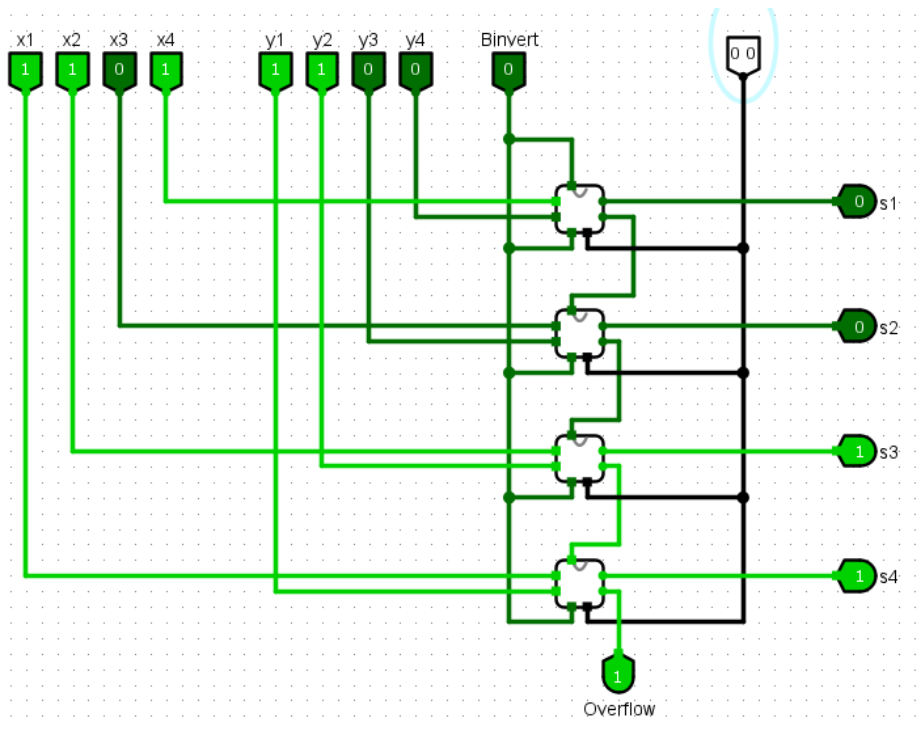
3



4



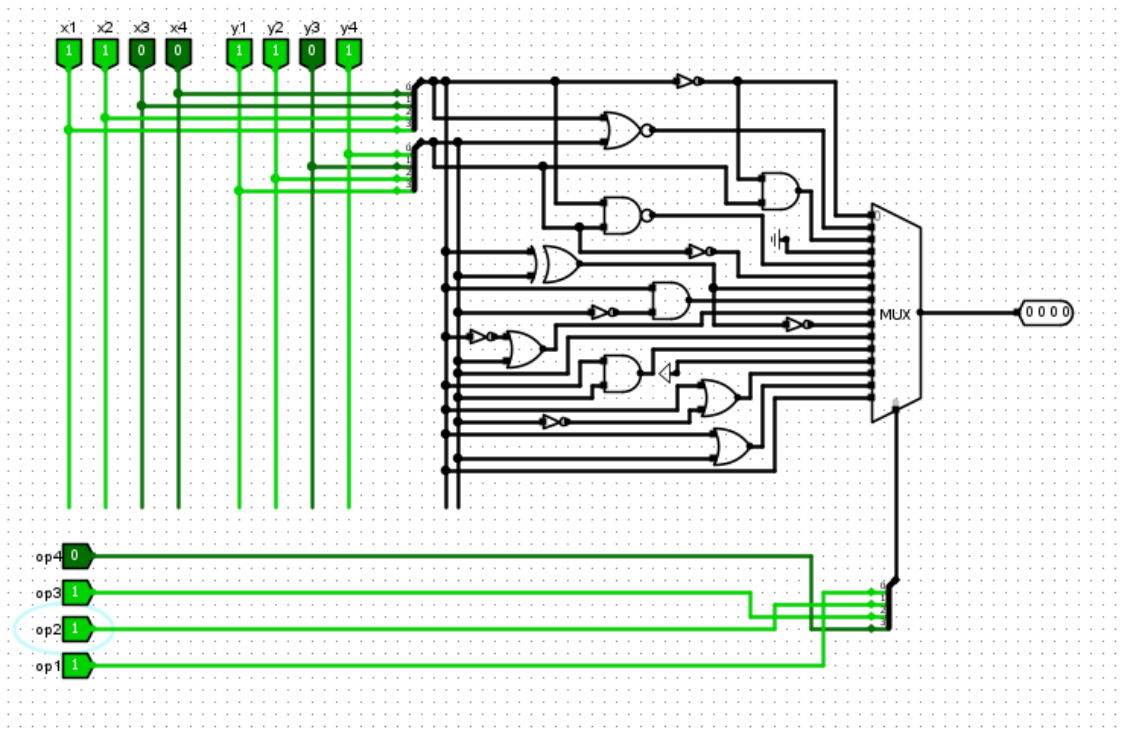
5



Parte 2

| Instruções | Binário | Resultado da Operação |
|------------|----------------|-----------------------|
| 450 | 0100 0101 0000 | 1011 |
| CB1 | 1100 1011 0001 | 0000 |
| A32 | 1010 0011 0010 | 0001 |
| C43 | 1100 0100 0011 | 0000 |
| 124 | 0001 0010 0100 | 1111 |
| 785 | 0111 1000 0101 | 0111 |
| 9B6 | 1001 1011 0110 | 0010 |
| CD7 | 1100 1101 0111 | 0000 |
| FE8 | 1111 1110 1000 | 1110 |
| 649 | 0110 0100 1001 | 1101 |
| D9A | 1101 1001 1010 | 1000 |
| FCB | 1111 1100 1011 | 1100 |
| 63C | 0110 0011 1100 | 1111 |
| 98D | 1001 1000 1101 | 1111 |
| 76E | 0111 0110 1110 | 0111 |
| 23F | 0010 0011 1111 | 0010 |

Print do teste CD7 sendo executado na ULA:



Se fosse fazer o teste para todos os valores possíveis da ULA (A, B, SELECT), resultaria em 2^{12} possibilidades de entradas, que seriam 4096 linhas da tabela. No caso do exercício foram passados apenas os testes do SELECT.