Lab C

Diagram

Description automatically generated4) Block Diagram for the Ripple Adder

8)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test Vector ID | Sel | x | y | Cout Expected | Overflow Expected | Sum Expected |
| 1 | 0 | 000001 | 000010 | 0 | 0 | 000011 |
| 2 | 1 | 000001 | 000010 | 0 | 0 | 111111 |
| 3 | 0 | 100000 | 100000 | 1 | 1 | 000000 |
| 4 | 1 | 101010 | 101010 | 1 | 0 | 000000 |
| 5 | 0 | 111101 | 111111 | 1 | 0 | 111100 |
| 6 | 1 | 111101 | 111111 | 1 | 0 | 111011 |

A screenshot of a computer

Description automatically generated with medium confidence

9) The circuit has passed all the test vectors we have given it. However, this is definitely not a fully exhaustive test bench. But we have gone through all the important test cases (ie ones that indicate carry and overflow and addition and subtraction with negative numbers)