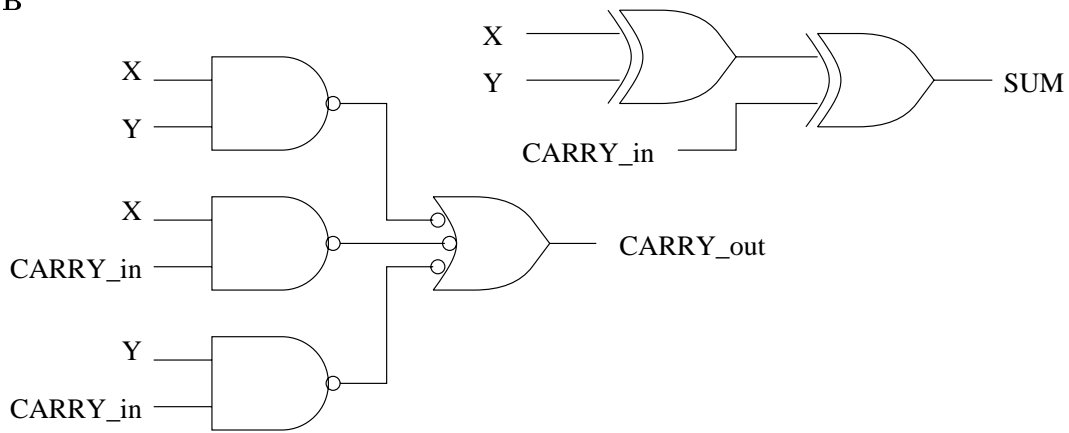


Arithmetic Units

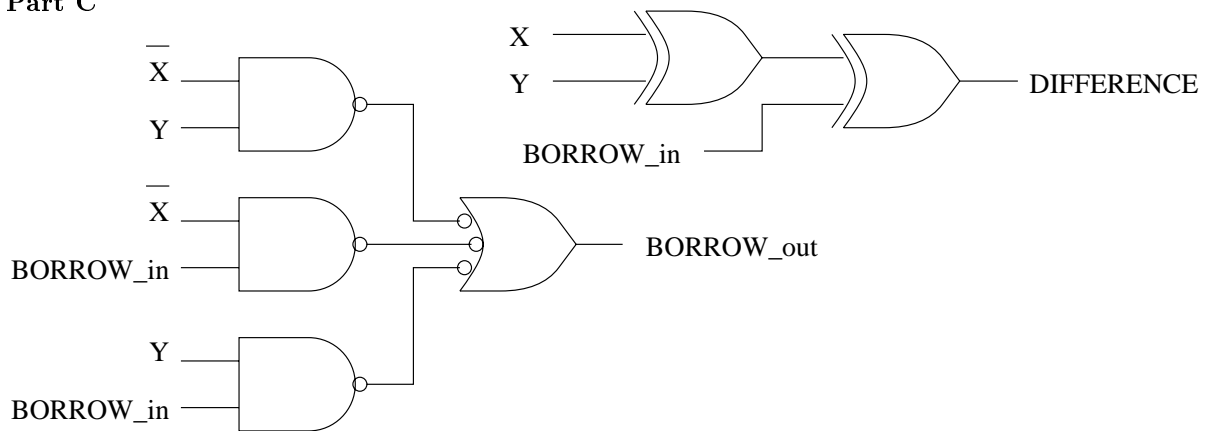
Part A

X	Y	$CARRY_{in}$	SUM	$CARRY_{out}$
0	0	0	0	0
1	0	0	1	0
0	1	0	1	0
1	1	0	0	1
0	0	1	1	0
1	0	1	0	1
0	1	1	0	1
1	1	1	1	1

Part B



Part C



$$DIFFERENCE = X \oplus Y \oplus BORROW_{in}$$

$$BORROW_{out} = \overline{X}Y + \overline{X}BORROW_{in} + YBORROW_{in}$$

