## Binary Addition Breakdown with 50 Examples

Binary		
Addition	Result	Explanation
0 + 0	0	No carry, 0 remains 0
1 + 0	1	No carry, $0 + 1 = 1$
0 + 1	1	No carry, $1 + 0 = 1$
1 + 1	10	with a carry of 1 0
1 + 10	11	carry $1, 1 = 1 + 0$
1 + 11	100	carry $1,10 = 1 + 1$
1 + 100	101	carry $1, 1 = 1 + 0$
1 + 101	110	carry $1,10 = 1 + 1$
1 + 110	111	carry $1, 1 = 1 + 0$
1 + 111	1000	carry $1,10 = 1 + 1$
1 + 1000	1001	carry $1, 1 = 1 + 0$
1 + 1001	1010	carry $1,10 = 1 + 1$
1 + 1010	1011	carry $1, 1 = 1 + 0$
1 + 1011	1100	carry $1,10 = 1 + 1$
1 + 1100	1101	carry $1, 1 = 1 + 0$
1 + 1101	1110	carry $1,10 = 1 + 1$
1 + 1110	1111	carry $1, 1 = 1 + 0$
1 + 1111	10000	carry $1,10 = 1 + 1$
1 + 10000	10001	carry $1, 1 = 1 + 0$
1 + 10001	10010	carry $1,10 = 1 + 1$
1 + 10010	10011	carry $1, 1 = 1 + 0$
1 + 10011	10100	carry $1,10 = 1 + 1$
1 + 10100	10101	carry $1, 1 = 1 + 0$
1 + 10101	10110	carry $1,10 = 1 + 1$
1 + 10110	10111	carry $1, 1 = 1 + 0$
1 + 10111	11000	carry $1,10 = 1 + 1$
1 + 11000	11001	carry $1, 1 = 1 + 0$
1 + 11001	11010	carry $1,10 = 1 + 1$
1 + 11010	11011	carry $1, 1 = 1 + 0$
1 + 11011	11100	carry $1,10 = 1 + 1$
1 + 11100	11101	carry $1, 1 = 1 + 0$
1 + 11101	11110	carry $1,10 = 1 + 1$
1 + 11110	11111	carry $1, 1 = 1 + 0$
1 + 11111	100000	carry $1,10 = 1 + 1$
1 + 100000	100001	carry $1, 1 = 1 + 0$
1 + 100001	100010	carry $1,10 = 1 + 1$
1 + 100010	100011	carry $1, 1 = 1 + 0$

1 + 100011	100100	carry $1,10 = 1 + 1$
1 + 100100	100101	carry $1, 1 = 1 + 0$
1 + 100101	100110	carry $1,10 = 1 + 1$
1 + 100110	100111	carry $1, 1 = 1 + 0$
1 + 100111	101000	carry $1,10 = 1 + 1$
1 + 101000	101001	carry $1, 1 = 1 + 0$
1 + 101001	101010	carry $1,10 = 1 + 1$
1 + 101010	101011	carry $1, 1 = 1 + 0$
1 + 101011	101100	carry $1,10 = 1 + 1$
1 + 101100	101101	carry $1, 1 = 1 + 0$
1 + 101101	101110	carry $1,10 = 1 + 1$
1 + 101110	101111	carry $1, 1 = 1 + 0$
1 + 101111	110000	carry $1,10 = 1 + 1$