

### Signed Binary Numbers Table (4 bits)

Decimal Base 10	Binary Signed Magnitude	Binary Signed- 1 <sup>s</sup> Complement	Binary Signed- 2 <sup>s</sup> Complement
+7	0111	0111	0111
+6	0110	0110	0110
+5	0101	0101	0101
+4	0100	0100	0100
+3	0011	0011	0011
+2	0010	0010	0010
+1	0001	0001	0001
+0	0000	0000	0000
-0	1000	1111	n/a
-1	1001	1110	1111
-2	1010	1101	1110
-3	1011	1100	1101
-4	1100	1011	1100
-5	1101	1010	1011
-6	1110	1001	1010
-7	1111	1000	1001
-8	n/a	n/a	1000

Binary Signed Magnitude- leftmost digit is sign (0 = + & 1 = -)

Binary Signed 1<sup>s</sup> Complement- positive numbers do nothing, **negative numbers** take 1<sup>s</sup> Complement of **positive** Binary Signed Magnitude

Binary Signed 2<sup>s</sup> Complement- positive numbers do nothing, **negative numbers** take 2<sup>s</sup> Complement of **positive** Binary Signed Magnitude