

Binary / Hex Worksheet

Convert the following between binary and decimal

0010 1010	57	255
0100 1110	38	127
0001 1001	145	252
1101 1011	248	240

Perform the binary addition, and then convert to decimal to check your answers:

<pre> 0010 0110 +0001 0001 ----- </pre>	<pre> 0110 1111 +0001 1110 ----- </pre>
<pre> 0010 1110 +0111 0110 ----- </pre>	<pre> 0100 0111 +0111 1110 ----- </pre>

Convert the following between binary and hex

0010 1010	A4	BE
0100 1110	38	8A
0001 1001	56	C7
1101 1011	D4	F3

Convert the following negative binary numbers to the two's complement.

-0010 0110	-0100 1110
-0001 1011	-0000 0001

Do the following subtractions by converting the second number to two's complement, then adding. Then convert all numbers back to decimal to check your answers.

0010 0110 - 0001 0001	0100 0111 - 0011 1100
1011 0110 - 0000 0101	0011 1100 - 0100 0111

What signed integers do the following two's complement numbers represent?

1101 1010

0101 1010

1001 0011