Homework Assignment 3

Signed Binary to Decimal

Convert each **signed binary number** into decimal. **DO NOT USE** two's complement. See task 3 of programming assignment 3 for instructions. Please show your work.

1. 0110
2. 1110
3. 001011
4. 111111
5. 01111111
6. 10000000
7. 000000000101
8. 111111111111
9. 101010
10. 0101

Unsigned Hexadecimal to Binary

Convert each **unsigned hexadecimal number** to binary. No work needed.

1. A
2. 2F
3. 0
4. 7FF
5. 1C
6. 9B
7. FF
8. 123
9. 5
10. ABCD

Signed Binary Subtraction

Find the difference for each of the following signed binary subtractions. Subtraction is just addition with the subtrahend inverted. 10 – 5 = 10 + (-5). Please show your work.

1. 0101 − 111
2. 1110 − 100101
3. 001011 − 101
4. 111111 − 11010
5. 01111111 − 1010010
6. 10000000 − 111111111
7. 000000000101 − 110
8. 111111111111 − 10101
9. 101010 − 111
10. 0101 − 1111001