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***Homework 2***

**Perform subtraction on the following unsigned binary numbers using the 2’s complement of the subtrahend. Where the result should be negative, 2’s complement it and affix a minus sign:**

X Y

1. **11011 – 11001**

X = 11011

2’s complement of Y = + 00111

Sum = 100010

discard end carry = – 100000

X – Y = 00010

1. **110100 – 10101**

X = 110100

Y = 010101

2’s complement of Y = + 101011

Sum = 1011111

discard end carry 25 = – 1000000

X – Y = 011111

1. **1011 – 110000**

X = 001011

2’s complement of Y = + 010000

Sum = 011011

There is no end carry.

Y – X = – 100101

1. **101010 – 101011**

X = 101010

2’s complement of Y = + 010101

Sum = 111111

There is no end carry.

Y – X = – 000001