Answer Key: -2.0625

Part 11 of 11 / 4.0 Points

In this question, you are provided with two *unsigned* binary numbers, A and B.

You are asked to evaluate (-A - B) as well as (-A + B) using the *two's complement 12-bit number system*.

If the result is encoded in less than 12 bits (including the sign bit), you need to extend it to fill the entire 12 bits.
If your answer is less than 12 bits or more than 12 bits, you will get zero.

Indicate if an overflow occurred or not.

N.B.: You need to provide the entire 12-bit result, even if an overflow occurs.

You MUST report the answer in 2's complement.

Do *NOT* convert the number back from the 2's complement.
Leave it in the 2's complement representation.

Question 11 of 12 2.0 Points

When A = 10001110001 and B = 110011101,

the value of (-A - B) = ✔ 100111110010 , If an overflow occurred during evaluating this expression, type yes, if not type no ✖ yes ; and

the value of (-A + B) = ✔ 110100101100 , If an overflow occurred during evaluating this expression, type yes, if not type no ✔ no

Answer Key: 100111110010, N|NO|No|no, 110100101100, N|NO|No|no

Question 12 of 12 2.0 Points

When A = 10111101011 and B = 10100010000,

the value of (-A - B) = ✖ 10100000101 , If an overflow occurred during evaluating this expression, type yes, if not type no ✖ no ; and

the value of (-A + B) = ✖ 11100100101 , If an overflow occurred during evaluating this expression, type yes, if not type no ✔ no

Answer Key: 010100000101, Y|Yes|yes|YES, 111100100101, N|NO|No|no