CSIS-2810 MIPS Instructions

Convert the following MIPS assembler language instructions to their corresponding **hexadecimal** representation. Shows the steps you use to convert the MIPS instructions into machine language.

Example:

**OR $s7, $a3, $t5**

Opcode = 0(hex)= 000000 (binary)

$rs = $a3= 7(decimal)=00111 (binary)

Srs = $t5 = 21 (decimal)= 10101 (binary)

$rd = $S7 = 23 (decimal) = 10111 (binary)

shamt = Not used = 00000 (binary)

funct = 25(hex) = 010101 (binary)

000000

00111

10101

10111

00000

010101

6 bits

6 bits

5 bits

5 bits

5 bits

5 bits

**Hexadecimal conversion: 0x00F5B813**

add $t5, $s1, $s2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

lw $t2, 1024($s5)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

addi $t1, $s4, 16

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

sll $t6, $s0, 2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

nor $t4, $s3, 0

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Convert the following machine language instructions to their corresponding MIPS assembler language instructions.

0000 0010 0000 1111 0010 1000 0010 0010

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

0000 0001 0100 1011 0110 0000 0010 0100

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_