1. jal instruction is at address 0x40000000. The subroutine sub is at address 0x40000300. Then $ra = _____ after executing jal sub

2. What needs to be done for $ra when calling subroutine in subroutine? (brief answer, no details needed) Put into stack

3. $7 = 0 after executing addiu $5 $0 -30; addiu $6 $0 30; sltu $7 $5 $6 (sltu: set as 1 if less than)

4. When push into stack, which one (subu and sw) is executed first?

5. The dual expression of A(A+B) = A is _____

6. Use NAND to expression A OR B: ___ (write NAND in your answer)

7. Maxterm 0101 represents _____ (using ABCD)

8. Simplify F(A,B,C,D) = Σ m(0,1,3,5,7,6,10,13,14,15) using K-map (result only)

1. jal instruction is at address 0x40000200. The subroutine sub is at address 0x40000400. Then $ra = _____ after executing jal sub

2. What needs to be done for $ra when calling subroutine in subroutine? (brief answer, no details needed)

3. $7 = __ after executing addiu $5 $0 30; addiu $6 $0 -30; sltu $7 $5 $6 (sltu: set as 1 if less than)

4. When pop from stack, which one (addu and lw) is executed first?

5. The dual expression of A + AB = A is _____

6. Use NAND to expression A AND B: __ (write NAND in your answer)

7. Maxterm 1010 represents _____ (using ABCD)

8. Simplify F(A,B,C,D) = Σ m(0,1,3,5,7,6,10,13,14,15) using K-map (result only)