## Turn k bit off (ADDI / SLL / XORI / AND / JALR)

|  |  |
| --- | --- |
| Assembly  turn\_k\_bit\_off:  ADDI a1, a1, -1  ADDI a2, x0, 1  SLL a1, a2, a1  XORI a1, a1, -1  AND a0, a0, a1  JALR x0, x1, 0 | Machine Code  0xFFF58593  0x00100613  0x00B615B3  0xFFF5C593  0x00B57533  0x00008067 |

ADDI instruction to deconstruct: 0xFFF58593

[Explain what should have happened, expand the hex number, and check that it happened]

SLL instruction to deconstruct: 0x00B615B3

[Explain]

XORI instruction to deconstruct: 0xFFF5C593

[Explain]

AND instruction to deconstruct: 0x00B57533

[Explain]

JALR instruction to deconstruct: 0x00008067

[Explain]

…

Template:

## \_\_code\_purpose\_\_ (new assembly instructions)

|  |  |
| --- | --- |
| C code | Simplify C |