

EE3450 Hw2 - Question 9 (2.3)

總分 8/8 ?

Chapter 2 : Instructions: Language of the Computer

0分, 共0分

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Question 9 (2.3)

8分, 共8分

[2.2, 2.3] For the following C statement, write the corresponding RISC-V assembly code. Assume that the variables i and j are assigned to registers "x28" and "x29", respectively. Assume that the base address of the arrays A and B are in registers "x10" and "x11", respectively.

```
B[8] = A[i-j]
```

Answer the following questions with this picture:

```
sub x30, (1), (2) // Compute i-j
slli x30, x30, num1 // Multiply by 8 to convert the word
// offset to a byte offset
add x30, x30, (3) // x30 = &A[i-j]
ld x3, 0((4)) // x3 = A[i-j]
sd x3, num2((5)) // B[8] = A[i-j]
```

(a)x30 (b)x29 (c)x28
(d)x11 (e)x10

✓ 1. What is the value of num1? *

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3 ✓

✓ 2. Find (1)(2)(3)(4)(5). *

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 bcead cbead ✓ cbdea cbdae

✓ 3. What is the value of num2? *

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64 ✓