

HW1

Q1

Please include the steps, e.g., how you find bit/hexadecimal digits, in your submission.

- a. unsigned: 427, signed: 427
- b. unsigned: 717, signed: -307

Q2

Please include the steps in your submission.

- a. 0x5F
- b. 0x9B

Q3

Work on hex digits or bits. For example, addition is done on hex digits.

ADD: B9AB2802

AND: 00AB4808

OR: B8FFDFFA

XOR: B85497F2

ADDI: 98ABD064

ANDI: 98ABCD60

SLLI: BCD6A000

SRAI: FF98ABCD

Q4

The solutions have 5 instructions, two of which are branches.

Test your code in RARS.

Q5

a. The total number of executed instructions is 146.

b. Your code may have a different number. Here are the numbers from the code in solutions. If $s0 = 0$, the number of executed instructions is 5. If $s0 = 0xFF00FF00$, the total number of executed instructions is 90.

Q6

There are 11 instructions in the solutions, 4 of which are branches.