

HW5 Answer Keys/Tips

RARS has a tool for us to practice single-precision floating-point numbers. However, the exponent for denormalized numbers is not correct in the tool.

Q1

The normalized the representation looks like -1.1111×2^{-50} .

a. When you see the correct answer, you know it is right.

b. 1.75×2^{-131}

Q2

0xBC7D1EB8

0xC44FF99A

Q3

0x4B7FFFFF

Q4

Similar to earlier RISC-V coding questions. Pay attention to calling convention involving floating-point registers.

Also, an array of floating-point numbers is an array, and it is passed to a function as an array.

Q5

- a. 2.6
- b. 3.3
- c. 1.18
- d. 2.25
- e. 1.22

Q6

- a. 1.25
- b. 1.44
- c. 2.012
- d. 1.1044