

Name: _____

CIS 351 Sample AL5 Problem

31 October 2025

AL5: Read Assembly

Describe in common English what the following functions do.

(a) `mysteryFunction1:`
`slt $t0, $a0, $a1`
`slt $t1, $a1, $a2`
`and $v0, $t0, $t1`
`jr $ra`

(b) Describe in common English what the following function does. Hint: It takes two integer parameters. `sra` stands for “shift right arithmetic”. It moves all the bits in the register to the right the specified amount.

```
mysteryFunction2:
add $v0, $a0, $a1
sra $v0, $v0, 1
jr $ra
```

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CIS 351 Sample AL5 Problem Solutions

Fri 31st Oct, 2025

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(a) `mysteryFunction1:`
`slt $t0, $a0, $a1`
`slt $t1, $a1, $a2`
`and $v0, $t0, $t1`
`jr $ra`

It returns whether the parameters are in strictly increasing order.

(b) Describe in common English what the following function does. Hint: It takes two integer parameters. `sra` stands for “shift right arithmetic”. It moves all the bits in the register to the right the specified amount.

`mysteryFunction2:`
`add $v0, $a0, $a1`
`sra $v0, $v0, 1`
`jr $ra`

It returns the average of the two numbers.