

In file arithmetic\_test.asm, there are file that use to test all base command in Table A we will see since on 7 line

```
addiu $1      # $1 = 5 (+) result is stored to $1 register
andi $2       # $2 = 1 result is stored to $2 register
ori $3        # $3 = 1 result is stored to $3 register
xori $4       # $4 = 0 xori result is stored to $4 register
slti $5       # $5 = 1 slti(<) result is stored to $5 register
sltiu $6      # $6 = 0 (< overflow) result is stored to $6 register
```

In file branch\_and\_jump\_test.asm, it test about jumps, branches and memory we will see since on 6 line

```
addiu $1      # $1 = 1 build 1 and store it to $1 register
addiu $3      # $3 = 10 build 10 and store it to $3 register
sw $1, 4($0)  store $1 to memory
build loop
    slti $2, $1, 10 set less than and store result to $2 register
    breq $2, $0, exit_loop set exit loop when result($2) equal 0
    addiu $3, $3, -1 (1-- $3 when not exit loop $3 register)
    addiu $1, $1, 1 (1++ $1 when not exit loop $1 register)
    j loop
exit_loop:
lw $1, 4($0)  load $0 to register
```

in file register\_arithmetic\_test.asm, it test all command

```
addiu $1      # $1 = 5 store it to $1 register
slti $5       # $5 = 1 store it to $5 register
sltiu $6      # $6 = 0 store it to $6 register
addu $7       # $7 = 6 store it to $7 register
subu $8       # $8 = -4 store it to $8 register
and $9        # $9 = 0 store it to $9 register
or $10       # $10 = 7 store it to $10 register
xor $11      # $11 = 7 store it to $11 register
nor $12      # $11 = 0 store it to $12 register
slt $13      # $13 = 0 store it to $13 register
sltu $14     # $14 = 1 store it to $14 register
```

and Logisim is store in mips-add.circ