

Laboratorio 4 - Esercizio 4.2

```
opa:          .word 2043
opb:          .word 5
res:          .space 4
tab:          .word somma, sottrazione, moltiplic, divisione
...
              sll $t2, $v0, 2
              lw $t2, tab($t2)
              jr $t2
somma:        add $t0, $t0, $t1
              b fine

sottrazione:  sub $t0, $t0, $t1
              b fine

moltiplic:    mul $t0, $t0, $t1
              b fine

divisione:    div $t0, $t0, $t1
              b fine
```

All'avvio

Text	Data
Data	
User data segment [10000000]..[10040000]	
[10000000]..[1000ffff]	00000000
[10010000]	000007fb 00000005 00000000 00400060
[10010010]	00400068 00400070 00400078 00000000
[10010020]..[1003ffff]	00000000

Digito : 2

R0 [r0] = 0	[00400020] 0000000c syscall ; 192: syscall # syscall 10 (exit)
R1 [at] = 1	[00400024] 3c011001 lui \$1, 4097 ; 25: lw \$t0, opa
R2 [v0] = 2	[00400028] 8c280000 lw \$8, 0(\$1)
R3 [v1] = 0	[0040002c] 3c011001 lui \$1, 4097 ; 26: lw \$t1, opb
R4 [a0] = 1	[00400030] 8c290004 lw \$9, 4(\$1)
R5 [a1] = 7ffff7b4	[00400034] 34020005 ori \$2, \$0, 5 ; 28: li \$v0, 5
R6 [a2] = 7ffff7bc	[00400038] 0000000c syscall ; 29: syscall
R7 [a3] = 0	[0040003c] 28410000 slti \$1, \$2, 0 ; 31: blt \$v0, 0, errore
R8 [t0] = 7fb	[00400040] 14200013 bne \$1, \$0, 76 [errore-0x00400040]
R9 [t1] = 5	[00400044] 28410004 slti \$1, \$2, 4 ; 32: bgt \$v0, 3, errore
R10 [t2] = 8	[00400048] 10200011 beq \$1, \$0, 68 [errore-0x00400048]
R11 [t3] = 0	[0040004c] 00025080 sll \$10, \$2, 2 ; 34: sll \$t2, \$v0, 2
R12 [t4] = 0	[00400050] 3c011001 lui \$1, 4097 ; 36: lw \$t2, tab(\$t2)
R13 [t5] = 0	[00400054] 002a0821 addu \$1, \$1, \$10
R14 [t6] = 0	[00400058] 8c2a000c lw \$10, 12(\$1)
R15 [t7] = 0	[0040005c] 01400008 jr \$10 ; 37: jr \$t2
R16 [s0] = 0	

R0 [r0] = 0	[00400020] 0000000c syscall ; 192: syscall # syscall 10 (exit)
R1 [at] = 10010008	[00400024] 3c011001 lui \$1, 4097 ; 25: lw \$t0, opa
R2 [v0] = 2	[00400028] 8c280000 lw \$8, 0(\$1)
R3 [v1] = 0	[0040002c] 3c011001 lui \$1, 4097 ; 26: lw \$t1, opb
R4 [a0] = 1	[00400030] 8c290004 lw \$9, 4(\$1)
R5 [a1] = 7ffff7b4	[00400034] 34020005 ori \$2, \$0, 5 ; 28: li \$v0, 5
R6 [a2] = 7ffff7bc	[00400038] 0000000c syscall ; 29: syscall
R7 [a3] = 0	[0040003c] 28410000 slti \$1, \$2, 0 ; 31: blt \$v0, 0, errore
R8 [t0] = 7fb	[00400040] 14200013 bne \$1, \$0, 76 [errore-0x00400040]
R9 [t1] = 5	[00400044] 28410004 slti \$1, \$2, 4 ; 32: bgt \$v0, 3, errore
R10 [t2] = 400070	[00400048] 10200011 beq \$1, \$0, 68 [errore-0x00400048]
R11 [t3] = 0	[0040004c] 00025080 sll \$10, \$2, 2 ; 34: sll \$t2, \$v0, 2
R12 [t4] = 0	[00400050] 3c011001 lui \$1, 4097 ; 36: lw \$t2, tab(\$t2)
R13 [t5] = 0	[00400054] 002a0821 addu \$1, \$1, \$10
R14 [t6] = 0	[00400058] 8c2a000c lw \$10, 12(\$1)
R15 [t7] = 0	[0040005c] 01400008 jr \$10 ; 37: jr \$t2
R16 [s0] = 0	

R0	[r0] = 0	[00400020] 0000000c	syscall	; 192: syscall # syscall 10 (exit)
R1	[at] = 10010008	[00400024] 3c011001	lui \$1, 4097	; 25: lw \$t0, opa
R2	[v0] = 2	[00400028] 8c280000	lw \$8, 0(\$1)	
R3	[v1] = 0	[0040002c] 3c011001	lui \$1, 4097	; 26: lw \$t1, opb
R4	[a0] = 1	[00400030] 8c290004	lw \$9, 4(\$1)	
R5	[a1] = 7ffff7b4	[00400034] 34020005	ori \$2, \$0, 5	; 28: li \$v0, 5
R6	[a2] = 7ffff7bc	[00400038] 0000000c	syscall	; 29: syscall
R7	[a3] = 0	[0040003c] 28410000	slti \$1, \$2, 0	; 31: blt \$v0, 0, errore
R8	[t0] = 7fb	[00400040] 14200013	bne \$1, \$0, 76 [errore-0x00400040]	
R9	[t1] = 5	[00400044] 28410004	slti \$1, \$2, 4	; 32: bgt \$v0, 3, errore
R10	[t2] = 400070	[00400048] 10200011	beq \$1, \$0, 68 [errore-0x00400048]	
R11	[t3] = 0	[0040004c] 00025080	sll \$10, \$2, 2	; 34: sll \$t2, \$v0, 2
R12	[t4] = 0	[00400050] 3c011001	lui \$1, 4097	; 36: lw \$t2, tab(\$t2)
R13	[t5] = 0	[00400054] 002a0821	addu \$1, \$1, \$10	
R14	[t6] = 0	[00400058] 8c2a000c	lw \$10, 12(\$1)	
R15	[t7] = 0	[0040005c] 01400008	jr \$10	; 37: jr \$t2
R16	[s0] = 0			

R0	[r0] = 0	[0040001c] 3402000a	ori \$2, \$0, 10	; 191: li \$v0 10
R1	[at] = 10010008	[00400020] 0000000c	syscall	; 192: syscall # syscall 10 (exit)
R2	[v0] = 2	[00400024] 3c011001	lui \$1, 4097	; 25: lw \$t0, opa
R3	[v1] = 0	[00400028] 8c280000	lw \$8, 0(\$1)	
R4	[a0] = 1	[0040002c] 3c011001	lui \$1, 4097	; 26: lw \$t1, opb
R5	[a1] = 7ffff7b4	[00400030] 8c290004	lw \$9, 4(\$1)	
R6	[a2] = 7ffff7bc	[00400034] 34020005	ori \$2, \$0, 5	; 28: li \$v0, 5
R7	[a3] = 0	[00400038] 0000000c	syscall	; 29: syscall
R8	[t0] = 7fb	[0040003c] 28410000	slti \$1, \$2, 0	; 31: blt \$v0, 0, errore
R9	[t1] = 5	[00400040] 14200013	bne \$1, \$0, 76 [errore-0x00400040]	
R10	[t2] = 400070	[00400044] 28410004	slti \$1, \$2, 4	; 32: bgt \$v0, 3, errore
R11	[t3] = 0	[00400048] 10200011	beq \$1, \$0, 68 [errore-0x00400048]	
R12	[t4] = 0	[0040004c] 00025080	sll \$10, \$2, 2	; 34: sll \$t2, \$v0, 2
R13	[t5] = 0	[00400050] 3c011001	lui \$1, 4097	; 36: lw \$t2, tab(\$t2)
R14	[t6] = 0	[00400054] 002a0821	addu \$1, \$1, \$10	
R15	[t7] = 0	[00400058] 8c2a000c	lw \$10, 12(\$1)	
R16	[s0] = 0	[0040005c] 01400008	jr \$10	; 37: jr \$t2
R17	[s1] = 0	[00400060] 01094020	add \$8, \$8, \$9	; 39: add \$t0, \$t0, \$t1
R18	[s2] = 0	[00400064] 0401000a	bgez \$0 40 [fine-0x00400064]; 40: b fine	
R19	[s3] = 0	[00400068] 01094022	sub \$8, \$8, \$9	; 42: sub \$t0, \$t0, \$t1
R20	[s4] = 0	[0040006c] 04010008	bgez \$0 32 [fine-0x0040006c]; 43: b fine	
R21	[s5] = 0	[00400070] 71094002	mul \$8, \$8, \$9	; 45: mul \$t0, \$t0, \$t1
R22	[s6] = 0			