

EC Examen de Problemes

Exercici 1 (Ex. Final 2012-2013 Q1)

```
func1:
    addiu    $sp, $sp, -12
    sw       $ra, 0($sp)
    sw       $s0, 4($sp)
    sw       $s1, 8($sp)
    move     $s0, $a1
    move     $s1, $a2
    move     $a1, $a2
    jal      func2
    sw       $v0, 0($s0)
    addu     $v0, $v0, $s1
    lw       $s1, 8($sp)
    lw       $s0, 4($sp)
    lw       $ra, 0($sp)
    addiu    $sp, $sp, 12
    jr       $ra
```

Exercici 2 (Ex. Parcial 2012-2013 Q1)

```
func1:    addiu    $sp, $sp, -36
          sw       $ra, 24($sp)
          sw       $s0, 28($sp)
          sw       $s1, 32($sp)
          move     $s0, $a0
          move     $s1, $a1
          addiu    $a0, $sp, 20
          jal      func3
          lw       $t0, 20($sp)
          ble     $s0, $t0, fi
          move     $a0, $sp
          lw       $a1, 0($s1)
          sll     $a1, $a1, 2
          addu     $a1, $sp, $a1
          lw       $a1, 0($a1)
          jal      func2
          sw       $v0, 0($s1)
fi:        lw       $v0, 4($s1)
          lw       $ra, 24($sp)
          lw       $s0, 28($sp)
          lw       $s1, 32($sp)
          addiu    $sp, $sp, 36
          jr       $ra
```

Exercici 3 (Ex. Parcial 2013-2014 Q1)

```
func1:
    addiu $sp,$sp,-36
    sw $ra,32($sp)
    sw $s0,28($sp)
    sw $s1,24($sp)
    move $s0,$a0
    move $s1,$a1
    lh $a0,0($s1)
```

```
    addu $a1,$sp,$s0
    addiu $a2,$sp,8
    jal func2
    ble $s0,$zero,fiif
    addiu $v0,$v0,1
fiif: lh $t0,0($s1)
    addu $v0,$v0,$t0
    lw $ra,32($sp)
    lw $s0,28($sp)
    lw $s1,24($sp)
    jr $ra
```