

Correction TD 8

Solution exercice 1:

```
tab : .space 40
entree : .asciiz "inserer l'element SVP : "
sortie: .asciiz "le nombre de 5 dans votre tableau est : "
```

```
.text
addi $t1, $zero, 1
addi $t2, $zero, 0
la $t0, tab

remplir:
bgt $t1, 10, afficher
li $v0, 4
la $a0, entree
syscall
li $v0, 5
syscall
move $t3, $v0
```

```
sw $t3, ($t0)
beq $t3, 5, calculer
addi $t0, $t0, 4
addi $t1, $t1, 1
b remplir
```

```
calculer:
addi $t2, $t2, 1
addi $t0, $t0, 4
addi $t1, $t1, 1
b remplir
```

```
afficher:
li $v0, 4
la $a0, sortie
syscall
li $v0, 1
move $a0, $t2
syscall
```

Solution exercice 2:

```
.data
t1: .space 20
t2: .space 20
t3: .space 20
entree1: .asciiz "Inserer l'element du T1:"
entree2: .asciiz "Inserer l'element du T2:"
sortie: .asciiz "Le tableau T3 est:"
espace: .asciiz " "
```

```

.text
la $t1, t1
la $t2, t2
la $t3, t3
addi $t4, $t4, 1

remplir_t1:
bgt $t4, 5, suite1
li $v0, 4
la $a0, entree1
syscall
li $v0, 5
syscall
move $t5, $v0

sw $t5, ($t1)
addi $t4, $t4, 1
addi $t1, $t1, 4
b remplir_t1

suite1:
addi $t4, $zero, 1

remplir_t2:
bgt $t4, 5, suite2
li $v0, 4
la $a0, entree2
syscall
li $v0, 5
syscall
move $t5, $v0

sw $t5, ($t2)
addi $t4, $t4, 1
addi $t2, $t2, 4
b remplir_t2

suite2:
addi $t4, $zero, 1
la $t1, t1
la $t2, t2
li $v0, 4
la $a0, sortie
syscall

somme:
bgt $t4, 5, fin
lw $t6, ($t1)
lw $t7, ($t2)

```

```
add $s1, $t6, $t7
sw $s1, ($t3)
li $v0, 1
move $a0, $s1
syscall
```

```
li $v0, 4
la $a0, espace }
syscall }
```

```
addi $t1, $t1, 4
addi $t2, $t2, 4
addi $t3, $t3, 4
addi $t4, $t4, 1
b somme
```

```
fin:
li $v0, 10
syscall
```

Solution exercice 3:

```
.data
tab: .space 100
espace: .asciiz " "
m1: .asciiz "Donnez le nombre des éléments de votre tableau SVP:"
m2: .asciiz "insérer l'élément SVP:"
.text
la $t0, tab
li $t1, 0

li $v0, 4
la $a0, m1
syscall

li $v0, 5
syscall
move $t2, $v0

remplir:
beq $t1, $t2, reset

li $v0, 4
la $a0, m2
syscall

li $v0, 5
syscall
move $t3, $v0

sw $t3, ($t0)
```

```
addi $t0, $t0, 4
addi $t1, $t1, 1
b remplir
```

```
reset:
subi $t1, $t1, 1
subi $t0, $t0, 4
inverser:
lw $t3, ($t0)
```

```
li $v0, 1
move $a0, $t3
syscall
```

```
li $v0, 4
la $a0, espace
syscall
```

```
subi $t0, $t0, 4
subi $t1, $t1, 1
```

```
bltz $t1, fin
b inverser
```

```
fin:
```

Solution exercice 4 :

```
.data
tab : .space 40
entree1 :.asciiz "Donnez la dimension du tableau SVP:"
entree2 :.asciiz "Insérer l'élément SVP:"
entree3:.asciiz "Donnez la valeur du seuil SVP:"
sortie:.asciiz "votre tableau est maintenant:"
espace: .asciiz " "
```

```
.text
la $t0, tab
addi $t1, $zero, 1
```

```
li $v0, 4
la $a0, entree1
syscall }
```

```
li $v0, 5
syscall
move $t2, $v0 }
```

```
remplir:
bgt $t1, $t2, calcul
li $v0, 4
}
```

```

la $a0, entree2
syscall
li $v0, 5
syscall
move $t3, $v0 }

```

```

sw $t3, ($t0)
addi $t1, $t1, 1
addi $t0, $t0, 4
b remplir

```

```

calcul:
li $v0, 4
la $a0, entree3 }
syscall
li $v0, 5
syscall
move $t4, $v0 }

```

```

la $t0, tab
addi $t1, $zero, 1

```

```

reset:
bgt $t1, $t2, suite
lw $t3, ($t0)
blt $t3, $t4, continuer
sw $zero, ($t0)

```

```

continuer:
addi $t0, $t0, 4
addi $t1, $t1, 1
b reset

```

```

suite:
la $t0, tab
addi $t1, $zero, 1

```

```

li $v0, 4
la $a0, sortie }
syscall

```

```

afficher:
bgt $t1, $t2, fin
lw $t3, ($t0)

```

```

li $v0, 1
move $a0, $t3 }
syscall
li $v0, 4
}

```

```
la $a0, espace  
syscall
```

```
addi $t0, $t0, 4  
addi $t1, $t1, 1  
b afficher
```

```
fin:  
li $v0, 10  
syscall }
```