

hellow.asm
Print "Hello world!"

```
#data segment with 'variables'
.data
hellow: .ascii "Hello world!"

#code segment with instructions
.text
li $v0, 4
la $a0, hellow
syscall # 4: print string

#terminate program
li $v0, 10
syscall
```

twonumbers.asm
example of input/output and calculation

```
.data
inputtxt: .asciiz "Give a number: "
txtsum: .asciiz "The sum is: "
txtdiff: .asciiz "\nThe difference is: "
txtmul: .asciiz "\nThe product is: "
txtdiv: .asciiz "\nThe quotient is: "
txtpls: .asciiz " + "
txtdv: .asciiz "/"
```

```
.text
```

```
#read integer into $t0:
la $a0, inputtxt
li $v0, 4
syscall # print string
li $v0, 5
syscall # read int
move $t0, $v0
```

```
#read integer into $t1:
la $a0, inputtxt
li $v0, 4
syscall # print string
li $v0, 5
syscall # read int
move $t1, $v0
```

```
la $a0, txtsum
li $v0, 4
syscall # print string
add $a0, $t1, $t0
li $v0, 1
syscall # print integer
```

```
la $a0, txtdiff
li $v0, 4
syscall # print string
sub $a0, $t0, $t1
li $v0, 1
syscall # print integer
```

```
la $a0, txtmul
li $v0, 4
syscall # print string
mult $t1, $t0
mflo $a0
li $v0, 1
syscall # print integer
```

```
la $a0, txtdiv
li $v0, 4
syscall    # print string
div $t0, $t1
mflo $a0
li $v0, 1
syscall    # print integer
la $a0, txtpls
li $v0, 4
syscall
mfhi $a0
li $v0, 1
syscall
la $a0, txtdiv
li $v0, 4
syscall
or $a0, $0, $t1
li $v0, 1
syscall

# terminate program
li $v0, 10
syscall
```