Practices1:

The first screenshot shows the MARS 4.5 editor with Practices 1.asm:

```
.data
prompt: .asciiz "Enter a number: "
is: .asciiz "Is "
div_and: .asciiz " divisible by 5 and 6? "
div_or: .asciiz " divisible by 5 or 6? "
div_xor: .asciiz " divisible by 5 or 6, but not both? "
true: .asciiz "true\n"
false: .asciiz "false\n"
.text

main:
#prompt and read an integer
li $v0, 4
la $a0, prompt
syscall

li $v0, 5
syscall

# move input to $t0
move $t0, $v0

li $t5, 5
# store the remainder on division by 5 and 6
div $t0, $t5
```


The second screenshot shows the Run I/O output:

```
Enter an integer: 15
The number is not divisible by either 5 or 6.
-- program is finished running --

Enter an integer: 12
The number is not divisible by either 5 or 6.
-- program is finished running --

Enter an integer: 45
The number is divisible by both 5 and 6.
-- program is finished running --

Enter an integer: 9
The number is divisible by both 5 and 6.
-- program is finished running --

Enter a number: 10
Is 10 divisible by 5 and 6? false
Is 10 divisible by 5 or 6? true
Is 10 divisible by 5 or 6, but not both? true

-- program is finished running --

Enter a number: 30
Is 30 divisible by 5 and 6? true
Is 30 divisible by 5 or 6? true
Is 30 divisible by 5 or 6, but not both? false

-- program is finished running --
```

Practices2:

File   Edit   Run   Settings   Tools   Help

Run speed at max (no interaction)

Edit   Execute

| Registers | Coproc 1 | Coproc 0 |

| Practices 1.asm | Practices 2.asm | Practices 3.asm | Program1.asm |

```
.data
prompt_num_ints: .asciiz "Enter the number of integers: "
prompt_int: .asciiz "Enter an integer: "
.text

li $v0, 4
la $a0, prompt_num_ints
syscall

li $v0, 5
syscall

move $s0, $v0

li $s1, 0
li $t0, 0

loop:
beq $s1, $s0, end_loop

li $v0, 4
la $a0, prompt_int
syscall

li $v0, 5
```

Name	Number	Value
$8 (vaddr)	8	0
$12 (status)	12	65297
$13 (cause)	13	0
$14 (epc)	14	0

Line: 22 Column: 19 ☐ Show Line Numbers

Mars Messages   Run I/O

File   Edit   Run   Settings   Tools   Help

Run speed at max (no interaction)

Mars Messages   Run I/O

| Registers | Coproc 1 | Coproc 0 |

```
The number is divisible by both 5 and 6.
-- program is finished running --

Enter a number: 10
Is 10 divisible by 5 and 6? false
Is 10 divisible by 5 or 6? true
Is 10 divisible by 5 or 6, but not both? true

-- program is finished running --

Enter a number: 30
Is 30 divisible by 5 and 6? true
Is 30 divisible by 5 or 6? true
Is 30 divisible by 5 or 6, but not both? false

-- program is finished running --

Enter the number of integers:

Enter the number of integers: 5
Enter an integer: 20
Enter an integer: 50
Enter an integer: 30
Enter an integer: 10
Enter an integer: 20
6
-- program is finished running (dropped off bottom) --
```
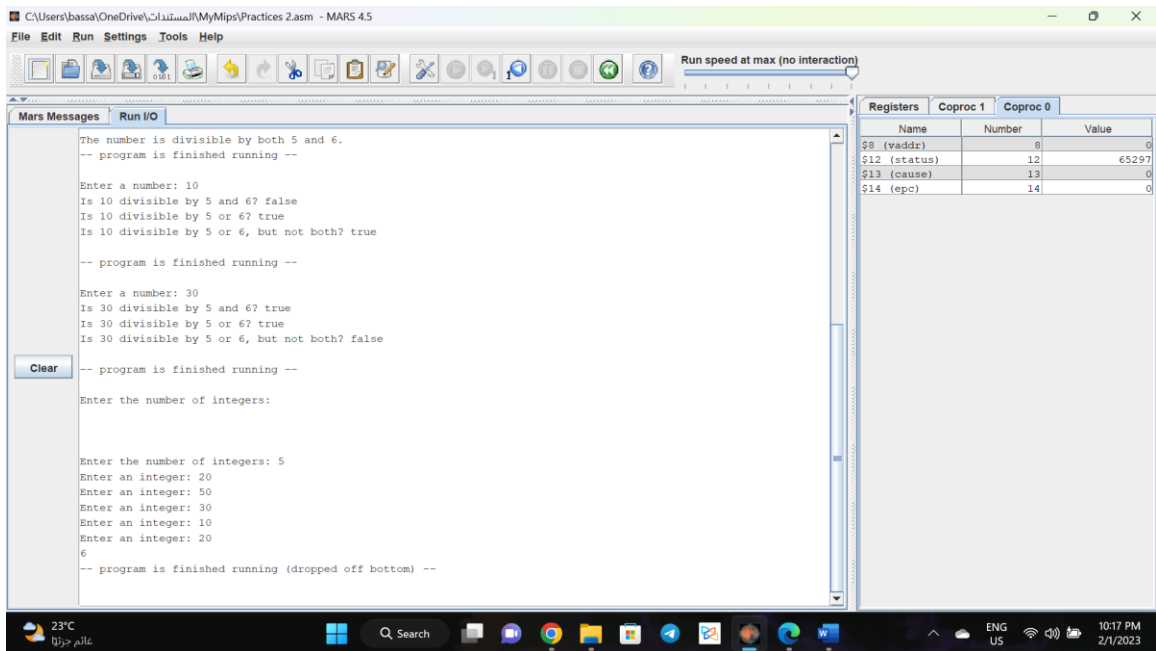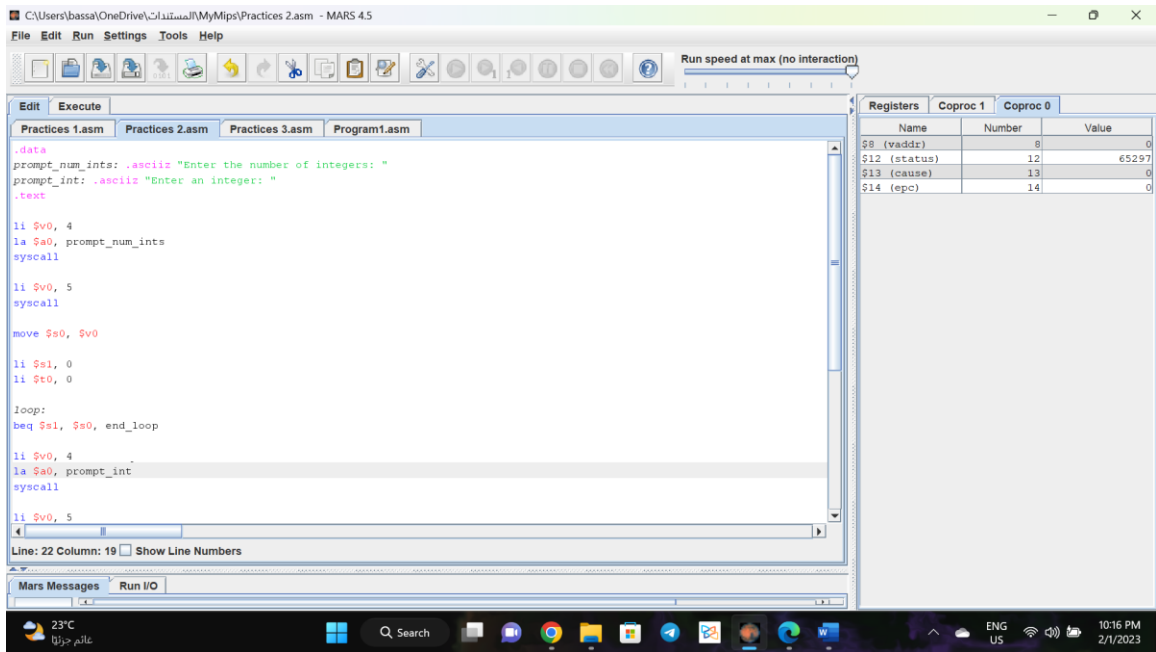
Clear

Name	Number	Value
$8 (vaddr)	8	0
$12 (status)	12	65297
$13 (cause)	13	0
$14 (epc)	14	0

Practices3: