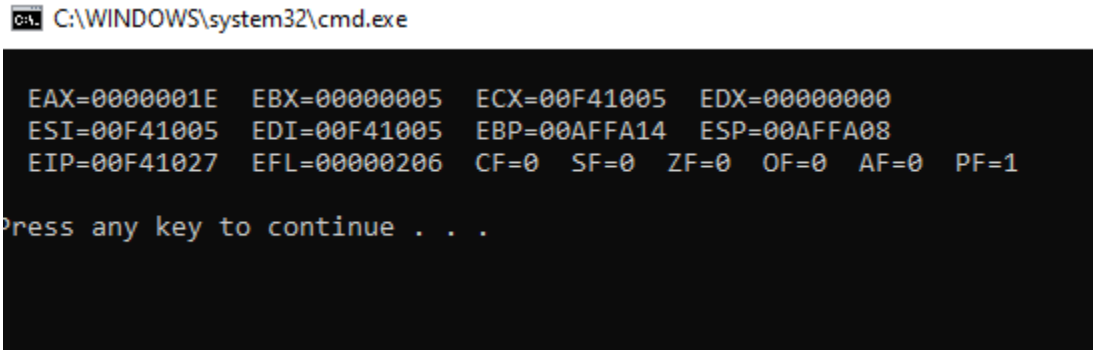
COAL Lab Tasks 6

Task 1:

Code:

```
INCLUDE Irvine32.inc
.code
main PROC
mov eax, 0
push 5
push 3
push 2
pop eax
pop ebx
mul ebx
pop ebx
mul ebx
call DumpRegs
exit
main ENDP
END main
```

Screenshot:

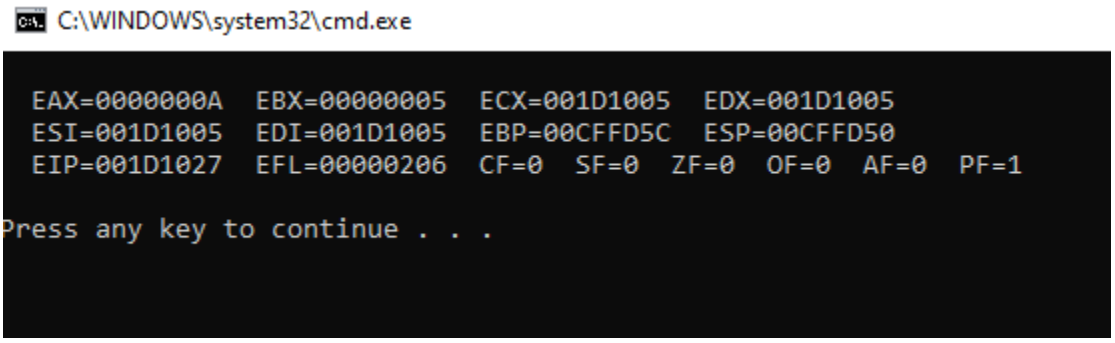


Task 2:

Code:

```
INCLUDE Irvine32.inc
.code
main PROC
mov eax, 0
push 5
push 3
push 2
pop eax
pop ebx
add eax, ebx
pop ebx
add eax, ebx
call DumpRegs
exit
main ENDP
END main
```

Screenshot:

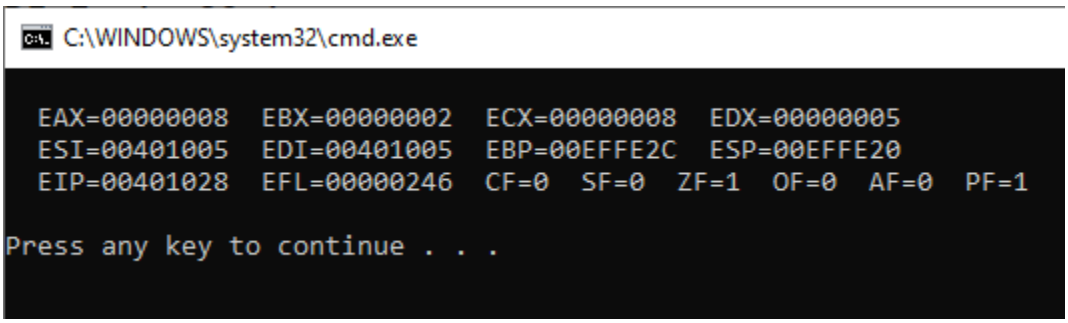


Task 3:

Code:

```
INCLUDE Irvine32.inc
.code
main PROC
mov eax, 0
push 5
push 8
push 2
push 1
pop eax              ;EAX=1
pop ebx              ;EBX=2
pop ecx              ;ECX=8
pop edx              ;EDX=5
mov eax, ecx         ;Movig largest value from ECX to EAX
call DumpRegs
exit
main ENDP
END main
```

Screenshot:

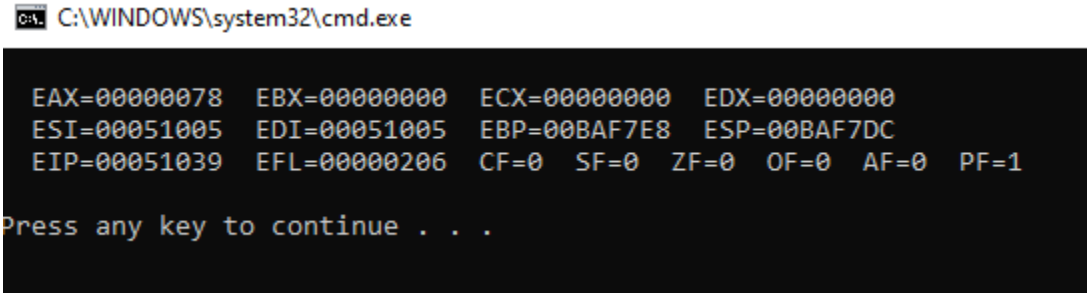


Task 4:

Code:

```
INCLUDE Irvine32.inc
.data
fact DWORD 5h
res DWORD 1
.code
main PROC
mov eax, 0
mov ebx, 0
mov edx, 0
mov ecx, fact
F:
	mov eax, ecx
	mul res
	mov res, eax
Loop F
call DumpRegs
exit
main ENDP
END main
```

Screenshot:



Note:

Calculating factorial of 5.

Answer in EAX= 78, which is in Hexadecimal, in Decimal it will be 120, which is factorial of 5.