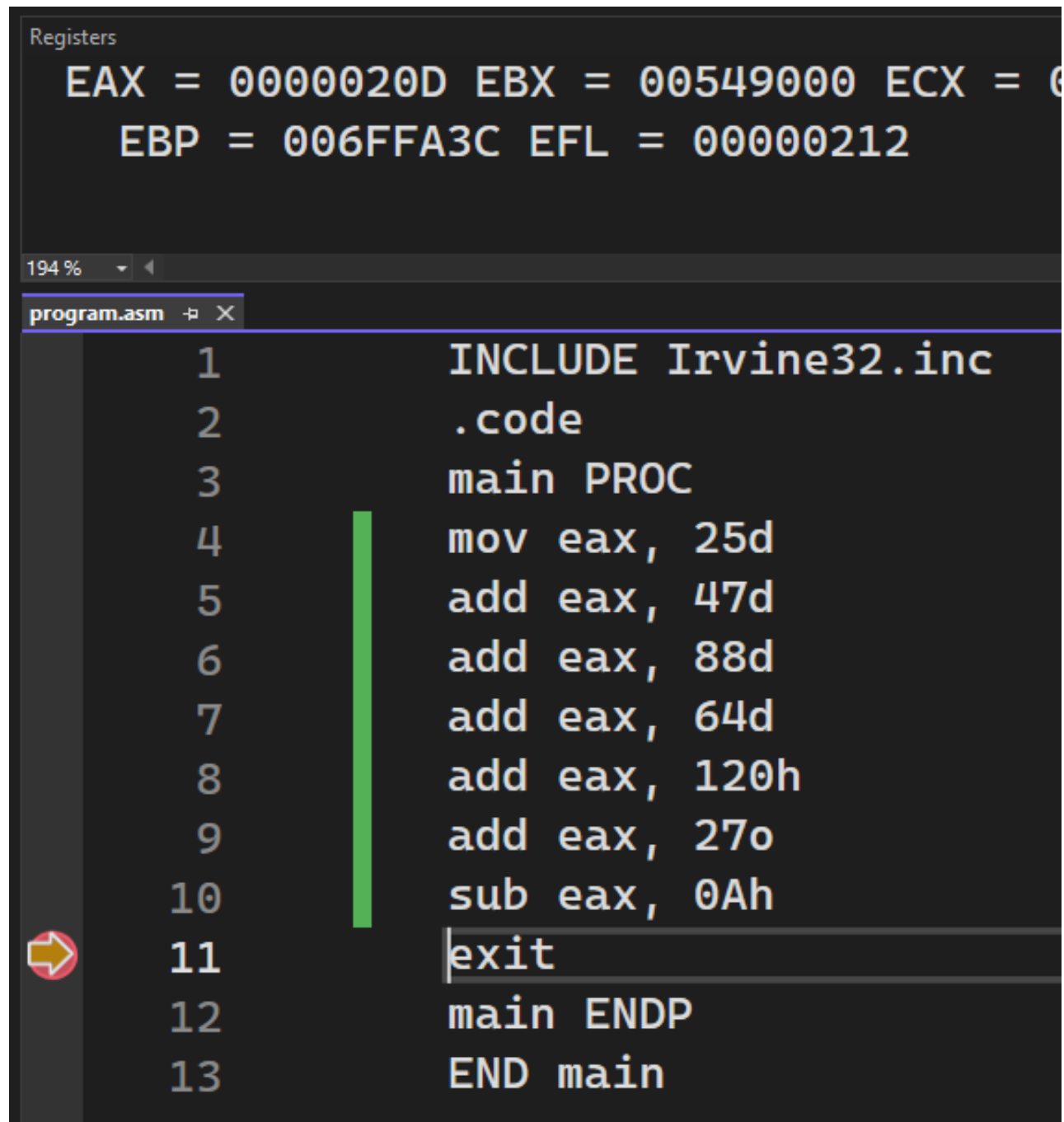


Q1

1)

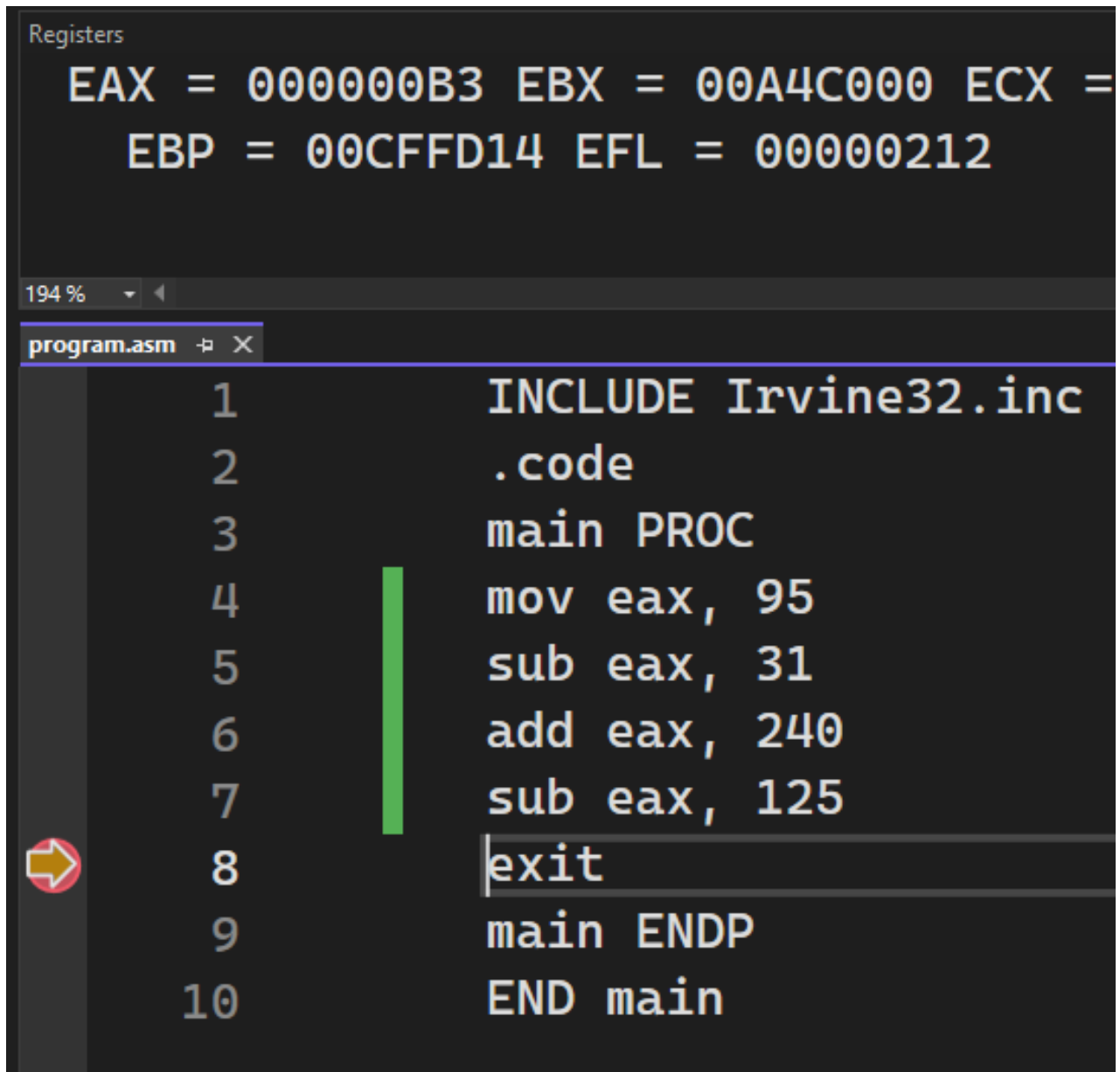


The image shows a debugger window with two panes. The top pane, titled 'Registers', displays the following values: EAX = 0000020D, EBX = 00549000, ECX = 0, EBP = 006FFA3C, and EFL = 00000212. The bottom pane shows an assembly file named 'program.asm' at 194% zoom. The code is as follows:

```
1      INCLUDE Irvine32.inc
2      .code
3      main PROC
4          mov eax, 25d
5          add eax, 47d
6          add eax, 88d
7          add eax, 64d
8          add eax, 120h
9          add eax, 27o
10         sub eax, 0Ah
11         exit
12     main ENDP
13     END main
```

A green vertical bar highlights the code area from line 4 to line 10. A red arrow icon points to line 11.

2)



The image shows a debugger window with two main sections. The top section, titled 'Registers', displays the current values of several registers: EAX = 000000B3, EBX = 00A4C000, ECX = 00000000, EBP = 00CFFD14, and EFL = 00000212. The bottom section shows an assembly file named 'program.asm' at 194% zoom. The code is as follows:

```
1      INCLUDE Irvine32.inc
2      .code
3      main PROC
4          mov eax, 95
5          sub eax, 31
6          add eax, 240
7          sub eax, 125
8          exit
9      main ENDP
10     END main
```

A green vertical bar is positioned between lines 4 and 7, and a red arrow icon points to line 8.

3)

Registers

EAX = 000005DB EBX = 0059F000 ECX =
EBP = 006FFC90 EFL = 00000216

194 %

program.asm

```
1      INCLUDE Irvine32.inc
2      .code
3      main PROC
4          mov eax, 101110b
5          add eax, 50Ah
6          add eax, 67d
7          add eax, 1010001b
8          add eax, 0Fh
9          exit
10     main ENDP
11     END main
```

4)

Registers

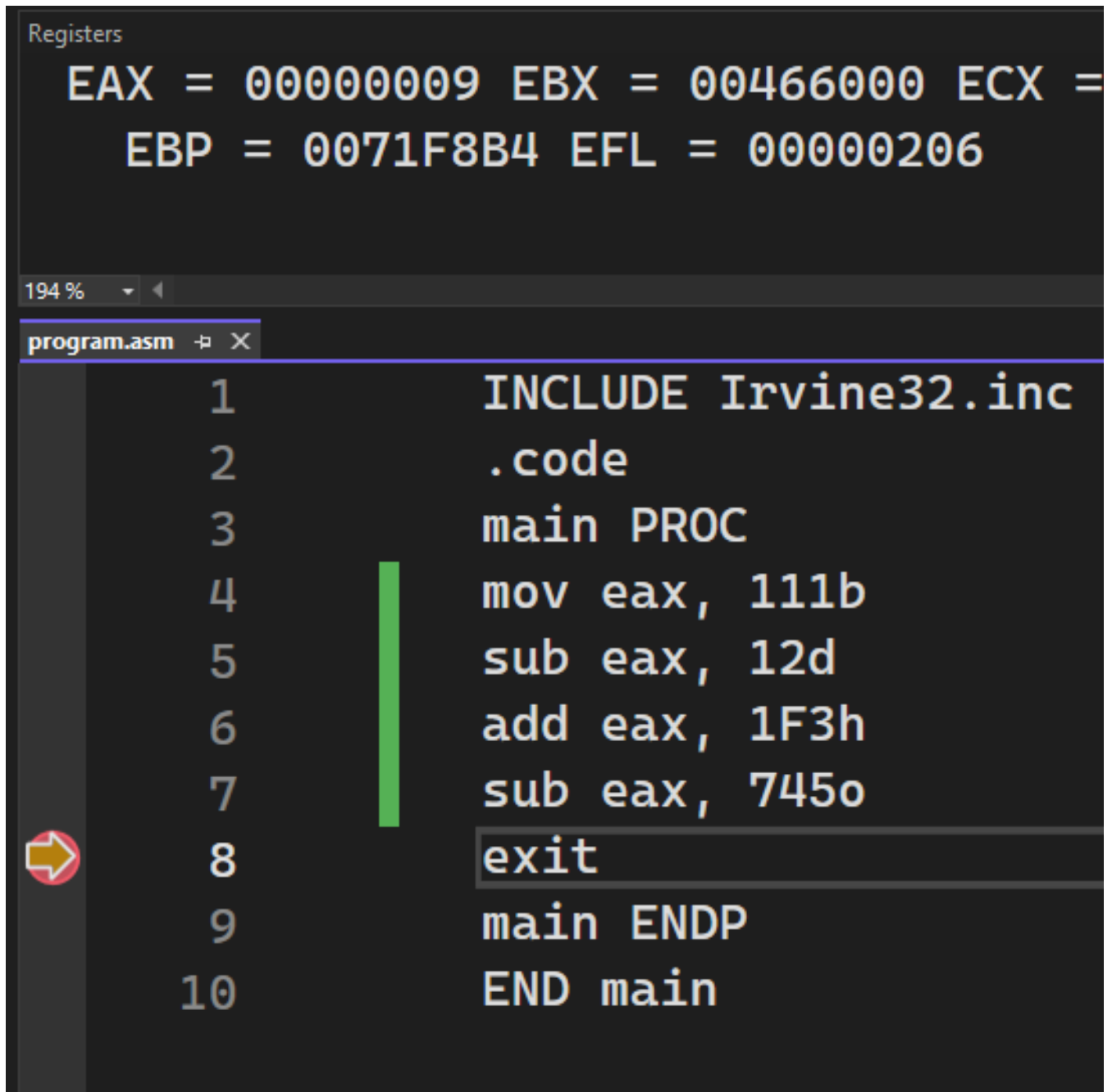
EAX = FFFFFFF85D EBX = 00EC1000 ECX =
EBP = 010FF9CC EFL = 00000282

194 %

program.asm

```
1      INCLUDE Irvine32.inc
2      .code
3      main PROC
4          mov eax, 11010110b
5          sub eax, 9C4h
6          add eax, 220d
7          add eax, 18d
8          add eax, 1011110b
9          sub eax, 0Dh
10         add eax, 12d
11         exit
12     main ENDP
13     END main
```

5)



The image shows a debugger window with two panes. The top pane, titled 'Registers', displays the following values: EAX = 00000009, EBX = 00466000, ECX = 00000000, EBP = 0071F8B4, and EFL = 00000206. The bottom pane, titled 'program.asm', shows assembly code with line numbers 1 through 10. A green vertical bar highlights line 7, and a yellow arrow icon points to line 8. The code is as follows:

```
1      INCLUDE Irvine32.inc
2      .code
3      main PROC
4          mov eax, 111b
5          sub eax, 12d
6          add eax, 1F3h
7          sub eax, 745o
8          exit
9      main ENDP
10     END main
```

Q2

1)

Registers

EAX = 009DFF04 EBX = 00A2E000 ECX = 00F71005 EDX = 0049CF48
EBP = 009DFEBC EFL = 00000216

194 %

program.asm

```
1      INCLUDE Irvine32.inc
2      .code
3      main PROC
4      mov edx, eax
5      add edx, 3d
6      add edx, ebx
7      sub edx, ecx
8      add edx, 12h
9      sub edx, 45o
10     add edx, 89d
11     exit
12     main ENDP
13     END main
```

2)

```
Registers
EAX = FF8F04FC EBX = 00710000 ECX = 00A91005 EDX = 00A91005
EBP = 008FF91C EFL = 00000286

194 %
program.asm
1      INCLUDE Irvine32.inc
2      .code
3      main PROC
4      mov eax, 4C2h
5      sub eax, ebx
6      add eax, 720
7      add eax, 55d
8      sub eax, 11101011b
9      add eax, 180d
10     exit
11     main ENDP
12     END main
```

3)

Registers

EAX = 008FF918 EBX = FF700DEF ECX = 00471005 EDX = 00471005
EBP = 008FF8D0 EFL = 00000282

194 %

program.asm

```
1      INCLUDE Irvine32.inc
2      .code
3      main PROC
4      mov ebx, 6F1h
5      sub ebx, eax
6      add ebx, 92d
7      add ebx, 47o
8      sub ebx, 11011001b
9      add ebx, 6Ch
10     exit
11     main ENDP
12     END main
```


4)

Registers

EAX = 00F7FB30 EBX = 00C7E000 ECX = 00000005 EDX = 00401005
EBP = 00F7FAE8 EFL = 00000206

194 %

program.asm

```
1      INCLUDE Irvine32.inc
2      .code
3      main PROC
4      mov ecx, 101011010110b
5      add ecx, 3Ah
6      sub ecx, 640
7      add ecx, ebx
8      sub ecx, ecx
9      add ecx, 5d
10     exit
11     main ENDP
12     END main
```