

JP

QUESTION 4

TITLE SUBTRACT (SUB.ASM)

; Program to subtract three integers.

INCLUDE Irvine32.inc

.code

main PROC

MOV EAX, 5000h ; EAX = 5000

SUB EAX, 2000h ; EAX = 3000h

SUB EAX, 1000h ; EAX = 2000h

- COMMENT!

This is a program subtracting Three integers.

5000, 2000 and 1000.

;

CALL DumpRegs ; display registers

EXIT

main ENDP

END main

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18

Question 1

1b. What type of files are produced by the assembler?

Ans. files
Source ~~code~~ and Listing. LST files

1a. It would not be a good idea because the addresses coded in the instructions would have to be updated when new variables were inserted before the existing one.

Question 3 main pro c

```
3b) MOV AX, 47104  
ADD EAX, 1270  
MOV DS, AX  
MAIN ENDP
```

Line 1 shows the PROC directive which identifies the beginning of a procedure. The name chosen for our program procedure is "main"

Line 2 is telling the computer to copy the number 47104 into location AX

Line 3 is telling the computer to add 1270 into the EAX 16-bit register

Line 4 says to copy the number in the AX register to DS register

Line 5 is an exit statement to wait and end the program.

QUESTION 2

2 c) 32 bit register

EAX
EBX
ECX
EDX

	16	15	8-7	0
		AH	AL	
		BH	BL	
		CH	CL	
		DH	DL	

16 bit registers

AX Accumulator
BX Base
CX Counter
DX Data

2a) Probability is a function which can be integrated or ~~distributed~~ distributed to a computer program if it can be used in an operating system other than the one which it was created with. The probability density function of a continuous random variable is a function which can be integrated to obtain the probability that the random variable takes a value in a given interval.

2b) It is not, because each assembly language is based on either a processor family or a specific computer.