

This programming assignment does not require any further coding or documentation than what is provided. The program will ABEND and your task is to learn how to investigate what happened so that you can debug your own Assembler programs in the future. To begin, run the following program on the Marist mainframe using the ASSIST JCL used previously. Be sure you type it or copy it EXACTLY as shown below:

```

DUMPEX  CSECT
        USING DUMPEX,15      ESTABLISH REG 15 AS BASE REG
*
        SR      7,7          CLEAR REG 7
*
        LA      8,NUM1       LOAD ADDRESS OF NUM1
        LA      9,NUM2       LOAD ADDRESS OF NUM2
*
        A       7,0(,8)      ADD NUM1 TO REG 7
        A       7,0(,9)      ADD NUM2 TO REG 7
*
        LA      10,SUMMED    LOAD ADDRESS OF SUMMED
        ST      7,0(,10)     STORE THE SUM OF VARIABLES
*
        XDUMP ,             DUMP REGS
*
        LTORG
*
SUMMED  DS      F            FULLWORD OF ZERO TO HOLD SUMMED INTEGERS
*
NUM1    DC      F'972460'    RANDOM INTEGER 1
NUM2    DC      F'1206000000' RANDOM INTEGER 2
NUM3    DC      F'1344335922' RANDOM INTEGER 3
*
        END    DUMPEX

```

Use the resulting ABEND dump output to answer the questions below. Each is worth 4 points except question 11 which is worth 10 points. You may type your answers over the lines in this document or type your answers into either a new Word or text document being careful to clearly number which question you are answering. Submit your Word or text document on Blackboard.

1. What is the address of the next instruction which would have been executed?

2. What is the value of the condition code at the time of the ABEND?

3. What is the length of the instruction that caused the ABEND (number of bytes)?

4. What does the value stored at location counter value 00002C represent?

5. What is the address of the instruction that caused the abend?

6. What type of error occurred (number and name)?

7. What usually causes this error?

8. What does the value in register 7 represent at the time of the ABEND dump?

9. What instruction needs to be added to fix this ABEND?

10. Did this error occur (a) while the program was being assembled or (b) when it was being run?

11. What exactly happened here to cause this ABEND? Be detailed but succinct in your description:
