ASSIST/I Version 2.03, Copyright 1984, BDM Software.   GRADE RUN FOR:

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  LOC   OBJECT CODE   ADDR1 ADDR2   STMT   SOURCE STATEMENT

```
                                        1 ****************************************
                                        2 *                                    *
                                        3 *   MICHAEL BEAVER                    *
                                        4 *   CS 310, SPRING 2013               *
                                        5 *   PROGRAM 1                         *
                                        6 *   DUE: FEBRUARY 20, 2013            *
                                        7 *                                    *
                                        8 *   DESCRIPTION:                      *
                                        9 *     THIS PROGRAM EXPECTS AS INPUT   *
                                       10 *     AN UNKNOWN NUMBER OF DATA       *
                                       11 *     LINES. EACH DATA LINE CONTAINS  *
                                       12 *     THREE INTEGERS (SEPARATED       *
                                       13 *     BY ONE OR MORE BLANKS). THE     *
                                       14 *     PROGRAM THEN DETERMINES THE     *
                                       15 *     LARGEST VALUE ON EACH LINE AND  *
                                       16 *     PRINTS THE VALUE. THE PROGRAM   *
                                       17 *     ALSO SUMS UP THE LARGEST        *
                                       18 *     VALUES. THE SUM IS PRINTED.     *
                                       19 *                                    *
                                       20 *   NOTE:                            *
                                       21 *     COMPLETELY BLANK DATA LINES     *
                                       22 *     ARE TREATED AS HAVING THE       *
                                       23 *     SAME DATA AS THE PREVIOUS       *
                                       24 *     DATA LINE.                      *
                                       25 *                                    *
                                       26 *   REGISTER KEY:                     *
                                       27 *     REG2 -> 1ST VALUE ON LINE       *
                                       28 *     REG3 -> 2ND VALUE ON LINE       *
                                       29 *     REG4 -> 3RD VALUE ON LINE       *
                                       30 *     REG5 -> LARGEST VALUE ON LINE   *
                                       31 *     REG6 -> SUM OF LARGEST VALUES   *
                                       32 *                                    *
                                       33 ****************************************

000000                                 35 BEAVER1  START

                                       37 ****************************************
                                       38 *                                    *
                                       39 *        BEGINNING HOUSEKEEPING       *
                                       40 *                                    *
                                       41 ****************************************
```

```
000000 90EC D00C              0000C      42              STM    14,12,12(13)
000004 05C0                              43              BALR   12,0
000006                                   44              USING  SAVING,12
000006 50D0 C07E              00084      45 SAVING   ST     13,SAVEAREA+4
00000A 41D0 C07A              00080      46              LA     13,SAVEAREA

                                         48 *****************************************
                                         49 *                                       *
                                         50 *            MAIN PROGRAM BODY           *
                                         51 *                                       *
                                         52 *****************************************
00000E 1B66                              53              SR     6,6                  ZERO-OUT REG6 FOR ACCUMULATOR

                                         55 *
                                         56 *   READ UNTIL EOF
                                         57 *
000010 E000 C0C2 0050 000C8              58 TOPREAD  XREAD CARD,80
000016 4740 C05E              00064      59              BC     B'0100',ENDREAD      EOF => EXIT THE LOOP

                                         61 *
                                         62 *   RETRIEVE THE THREE VALUES
                                         63 *
00001A 5320 C0C2              000C8      64              XDECI 2,CARD                RETRIEVE 1ST NUMBER ON LINE
00001E 5331 0000              00000      65              XDECI 3,0(1)                RETRIEVE 2ND NUMBER ON LINE
000022 5341 0000              00000      66              XDECI 4,0(1)                RETRIEVE 3RD NUMBER ON LINE

                                         68 *
                                         69 *   COMPARE NUMBERS
                                         70 *
000026 1923                              71 IF       CR     2,3
000028 47A0 C02A              00030      72              BC     B'1010',THEN         1ST NUMBER >= 2ND NUMBER
00002C 4740 C030              00036      73              BC     B'0100',ELSE         1ST NUMBER <  2ND NUMBER
000030 1924                              74 THEN     CR     2,4
000032 47A0 C03A              00040      75              BC     B'1010',SAVE1        1ST NUMBER IS LARGEST
000036 1934                              76 ELSE     CR     3,4
000038 47A0 C040              00046      77              BC     B'1010',SAVE2        2ND NUMBER IS LARGEST
00003C 4740 C046              0004C      78              BC     B'0100',SAVE3        3RD NUMBER IS LARGEST

                                         80 *
                                         81 *   1ST NUMBER IS LARGEST, SO SAVE IT
                                         82 *
000040 1852                              83 SAVE1    LR     5,2
000042 47F0 C048              0004E      84              BC     B'1111',PRINT
                                         86 *
                                         87 *   2ND NUMBER IS LARGEST, SO SAVE IT
                                         88 *
```

```
000046 1853                              89 SAVE2    LR    5,3
000048 47F0 C048              0004E       90           BC    B'1111',PRINT

                                          92 *
                                          93 *   3RD NUMBER IS LARGEST, SO SAVE IT
                                          94 *
00004C 1854                               95 SAVE3    LR    5,4

                                          97 *
                                          98 *  OUTPUT LARGEST NUMBER
                                          99 *
00004E 5250 C113              00119      100 PRINT    XDECO 5,OUTLINE
000052 E020 C11F 0017 00125              101           XPRNT LRGHEAD,23
000058 E020 C112 000D 00118              102           XPRNT CARRIAGE,13

00005E 1A65                              104           AR    6,5                  ADD LARGEST VALUE TO SUM
000060 47F0 C00A              00010      105           BC    B'1111',TOPREAD

                                         107 *
                                         108 *  OUTPUT SUM OF LARGEST VALUES
                                         109 *
000064 5260 C113              00119      110 ENDREAD  XDECO 6,OUTLINE
000068 E020 C136 0017 0013C              111           XPRNT SUMHEAD,23
00006E E020 C112 000D 00118              112           XPRNT CARRIAGE,13

                                         114 **********************************
                                         115 *                                *
                                         116 *       ENDING HOUSEKEEPING       *
                                         117 *                                *
                                         118 **********************************
000074 58D0 C07E              00084      119           L     13,SAVEAREA+4
000078 98EC D00C              0000C      120           LM    14,12,12(13)
00007C 07FE                              121           BR    14

                                         123 **********************************
                                         124 *                                *
                                         125 *   DECLARE STORAGE AND CONSTANTS *
                                         126 *                                *
                                         127 **********************************
000080                                   128 SAVEAREA DS    18F
0000C8                                   129 CARD     DS    CL80
000118 4E                                130 CARRIAGE DC    C'+'
000119                                   131 OUTLINE  DS    CL12
000125 40E3C8C540D3C1D9                  132 LRGHEAD  DC    C' THE LARGEST VALUE IS: '
00013C F040404040404040                  133 SUMHEAD  DC    C'0           THE SUM IS: '
```

```
135 ******************************************
136 *                                        *
137 * END, DATA ENTRY, AND LITERAL POOL *
138 *                                        *
139 ******************************************
140          END    BEAVER1
```

***   0 STATEMENTS FLAGGED – 0 WARNINGS, 0 ERRORS

*** PROGRAM EXECUTION BEGINNING –
ANY OUTPUT BEFORE EXECUTION COMPLETE MESSAGE IS PRODUCED BY USER PROGRAM ***

        THE SUM IS: 0

*** EXECUTION COMPLETED ***