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ENEE 350 Homework Set 7
 Programming Assignment 2
 (Due: Class 19, Mon., Apr. 5, 2010)

Write, assemble and run successfully on the simulator a Mac-1 subroutine **minev(n,x)** that returns in the AC the address of the integer possessing the smallest even value (i.e., the farthest left value on the real line that is a multiple of 2, including zero) among the n integers in the array whose starting address is x. Your subroutine should be tested with the main program shown below, which defines how the parameters are passed.

```

/main program | /continued from below halt
  EXTRN minev | data 40
ans1 RES 1 | 8
ans2 RES 1 | 129
ans3 RES 1 | 3
n1 7 | -133
n2 10 | 0
n3 5 | -2
start loco 4020 | -29
  swap /initialize sp | -3
  loco n1 | 344
  push /push address n1 | 15
  loco data | -6
  push /push array start address | -435
one call minev | 13
  stod ans1 | END start
  insp 2 |
  loco n2 /push address n2 |
  push |
  loco data |
  addd (4) |
  push /push array start address |
two call minev |
  stod ans2 |
  insp 2 |
  loco n3 /push address n3 |
  push |
  loco data |
  addd (6) |
  push /push array start address |
three call minev |
  stod ans3 |
  insp 2 |
  halt |
  /data array continues here but |
  / is shown in the above right hand column |

```

Hand in a copy of the main program symbolic assembly listing, the subroutine symbolic assembly listing, the contents of (macro) memory after “load main sub” (i.e., of main.abs) before execution of the program, and the contents of memory after execution of the program. Highlight and comment upon the final answers. Specify what values are contained in the addresses specified by ans1, ans2, and ans3.