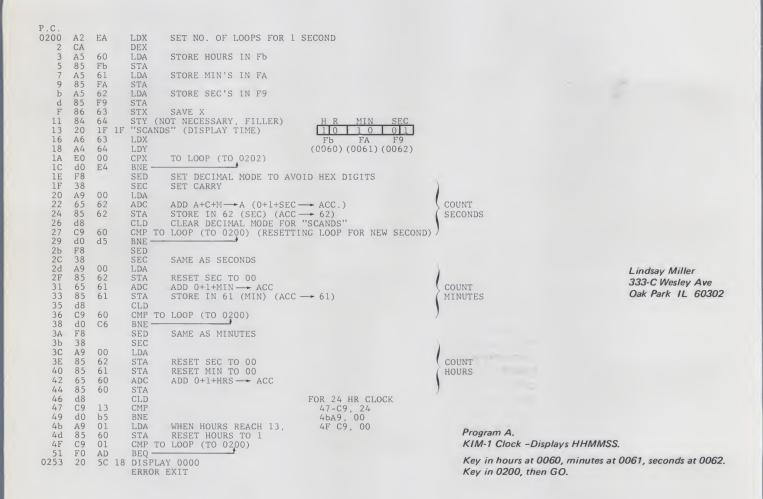*If the home computer is going to be left on 24 hours a day (hopefully doing some useful things) then it would only seem natural that it should be serving as a clock, also ... and not a hexadecimal or octal clock! Lindsay has got a program for turning your KIM-1 into a clock. (Sounds like a good place for interrupts to be applied.) — John.*

```
P.C.
0200  A2  EA      LDX     SET NO. OF LOOPS FOR 1 SECOND
   2  CA          DEX
   3  A5  60      LDA     STORE HOURS IN Fb
   5  85  Fb      STA
   7  A5  61      LDA     STORE MIN'S IN FA
   9  85  FA      STA
   b  A5  62      LDA     STORE SEC'S IN F9
   d  85  F9      STA
   F  86  63      STX     SAVE X
  11  84  64      STY (NOT NECESSARY, FILLER)      H R   MIN   SEC
  13  20  1F 1F   "SCANDS" (DISPLAY TIME)        1 0 | 1 0 | 0 1
  16  A6  63      LDX                             Fb    FA    F9
  18  A4  64      LDY                           (0060)(0061)(0062)
  1A  E0  00      CPX     TO LOOP (TO 0202)
  1C  d0  E4      BNE ──────
  1E  F8          SED     SET DECIMAL MODE TO AVOID HEX DIGITS
  1F  38          SEC     SET CARRY
  20  A9  00      LDA
  22  65  62      ADC     ADD A+C+M──▶A (0+1+SEC──▶ACC.)
  24  85  62      STA     STORE IN 62 (SEC) (ACC──▶62)
  26  d8          CLD     CLEAR DECIMAL MODE FOR "SCANDS"
  27  C9  60      CMP TO LOOP (TO 0200) (RESETTING LOOP FOR NEW SECOND)
  29  d0  d5      BNE ──────
  2b  F8          SED
  2C  38          SEC     SAME AS SECONDS
  2d  A9  00      LDA
  2F  85  62      STA     RESET SEC TO 00
  31  65  61      ADC     ADD 0+1+MIN──▶ ACC
  33  85  61      STA     STORE IN 61 (MIN) (ACC──▶61)
  35  d8          CLD
  36  C9  60      CMP TO LOOP (TO 0200)
  38  d0  C6      BNE ──────
  3A  F8          SED     SAME AS MINUTES
  3b  38          SEC
  3C  A9  00      LDA
  3E  85  62      STA     RESET SEC TO 00
  40  85  61      STA     RESET MIN TO 00
  42  65  60      ADC     ADD 0+1+HRS──▶ ACC
  44  85  60      STA
  46  d8          CLD                        FOR 24 HR CLOCK
  47  C9  13      CMP                        47-C9, 24
  49  d0  b5      BNE                        4bA9, 00
  4b  A9  01      LDA     WHEN HOURS REACH 13,   4F C9, 00
  4d  85  60      STA     RESET HOURS TO 1
  4F  C9  01      CMP TO LOOP (TO 0200)
  51  F0  AD      BEQ ──────
0253  20  5C 18   DISPLAY 0000
                  ERROR EXIT
```

COUNT SECONDS

COUNT MINUTES

COUNT HOURS

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Program A.
KIM-1 Clock –Displays HHMMSS.

Key in hours at 0060, minutes at 0061, seconds at 0062.
Key in 0200, then GO.

Found:

A Use for Your Computer!

...a clock program for the KIM