

ADDITION OF TWO 8-BIT NUMBERS

- OBJECTIVES

- To add two 8-bit numbers located at 2030H and 2031H.
- To store the sum at 2040H.

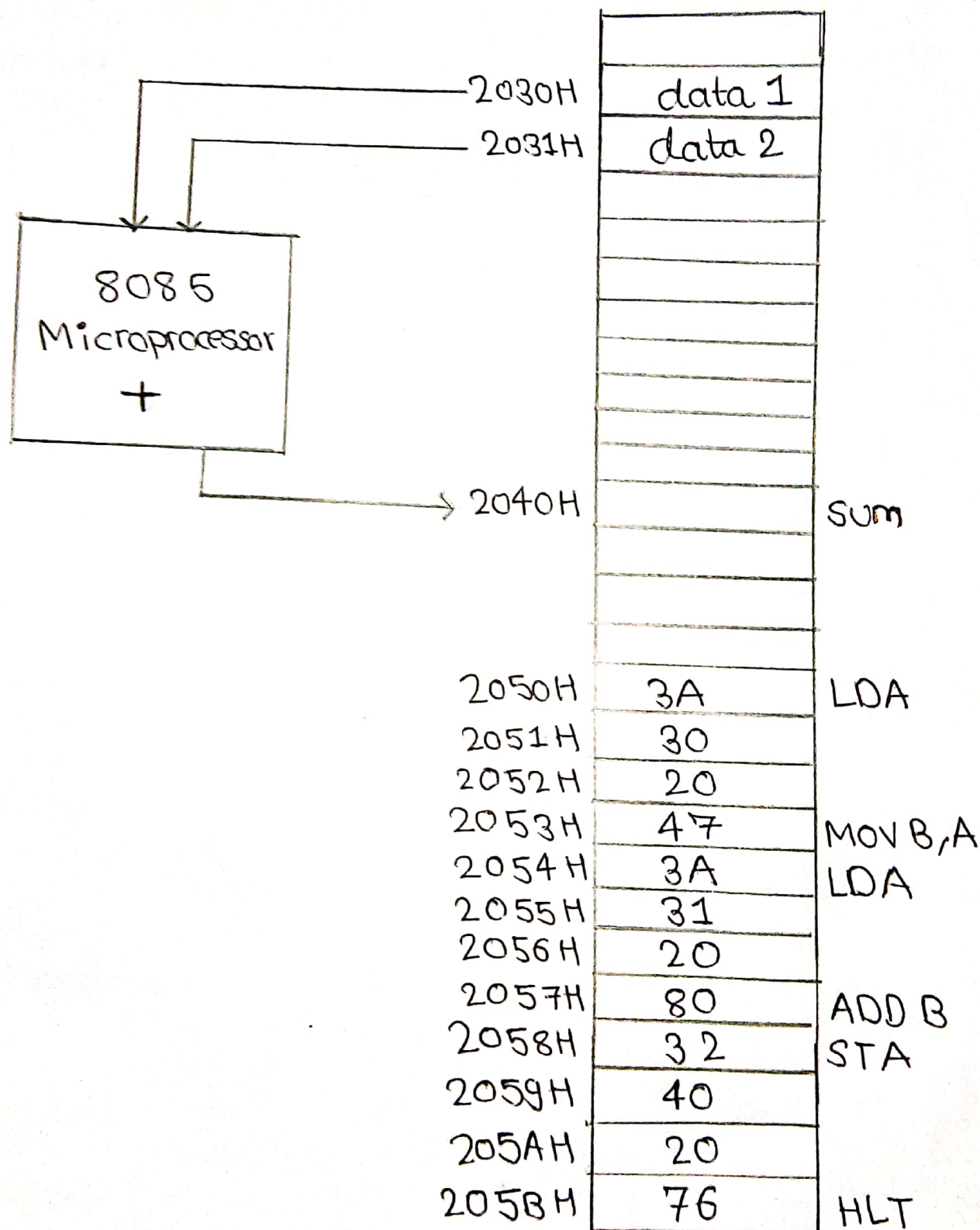
- TOOLS

- 8085 microprocessor kit.

- ASSEMBLY CODE

```
LDA 2030H
MOV B, A
LDA 2031H
ADD B
STA 2040H
HLT
```

• OBSERVATION & RESULT



Here, 23H is input as data 1 and 51H as data 2. After executing the program, the sum was found to be 74H at 2040H.

• CONCLUSION

The program to add two 8-bit numbers can be executed using 8085 microprocessor.

ADDITION OF TWO 16-BIT NUMBERS

• OBJECTIVES

- To add two 16-bit numbers located at 2030H-2031H & 2032H-2033H
- To store the sum at 2040H & 2041H.

• TOOLS

- 8085 microprocessor kit.

• ASSEMBLY CODE

LHLD 2030H

XCHG

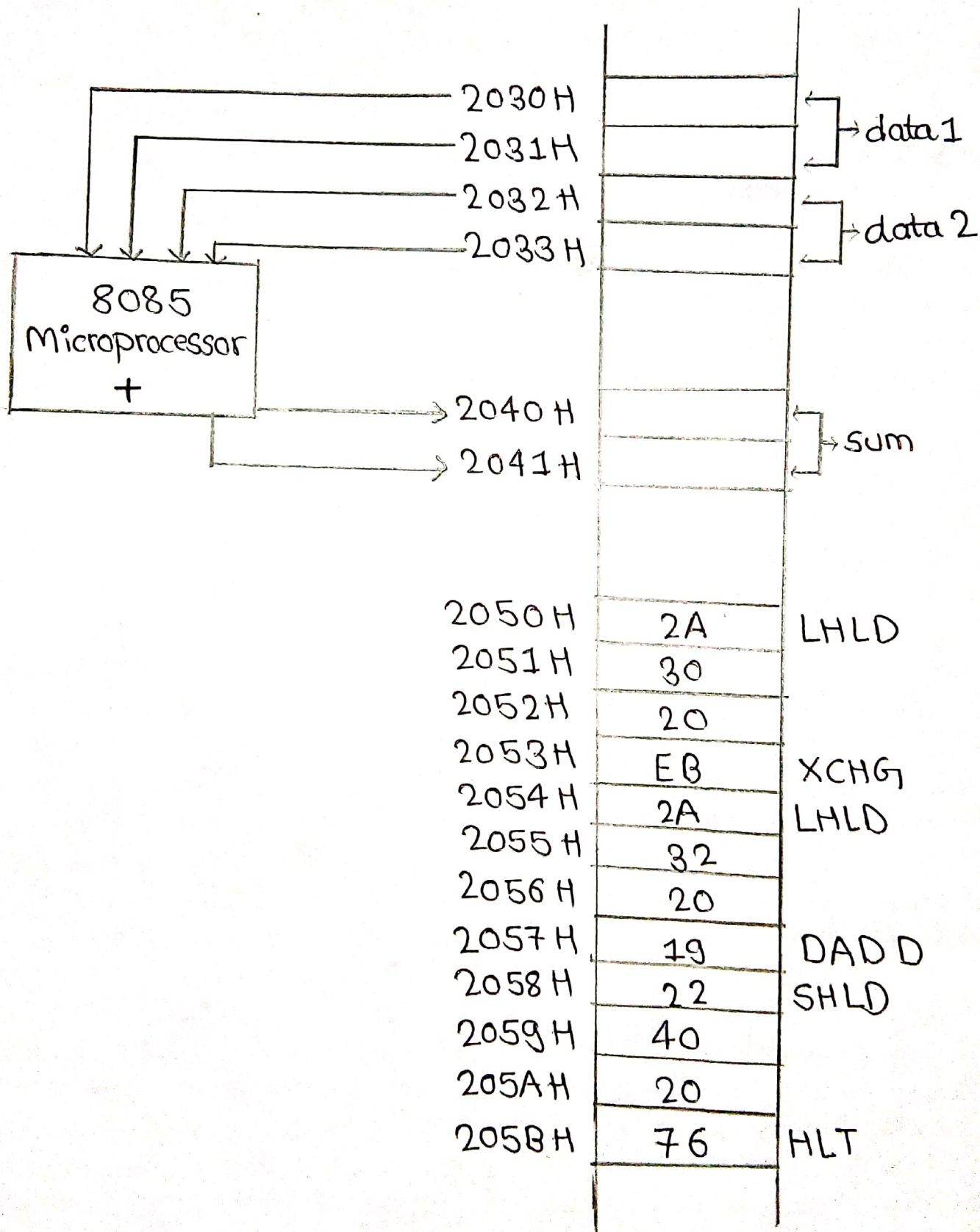
LHLD 2032H

DAD D

SHLD 2040H

HLT

OBSERVATION & RESULT



Here, 1234H is input as data 1 and 4120H as data 2. After executing the program, the sum was found to be 5354H at 2040H & 2041H.

• CONCLUSION

The program to add two 16-bit numbers can be executed using 8085 microprocessor.

MULTIPLICATION OF TWO 8-BIT NUMBERS

• OBJECTIVES

- To multiply two 8-bit numbers located at 2030H & 2031H.
- To store the product at 2040H & 2041H.

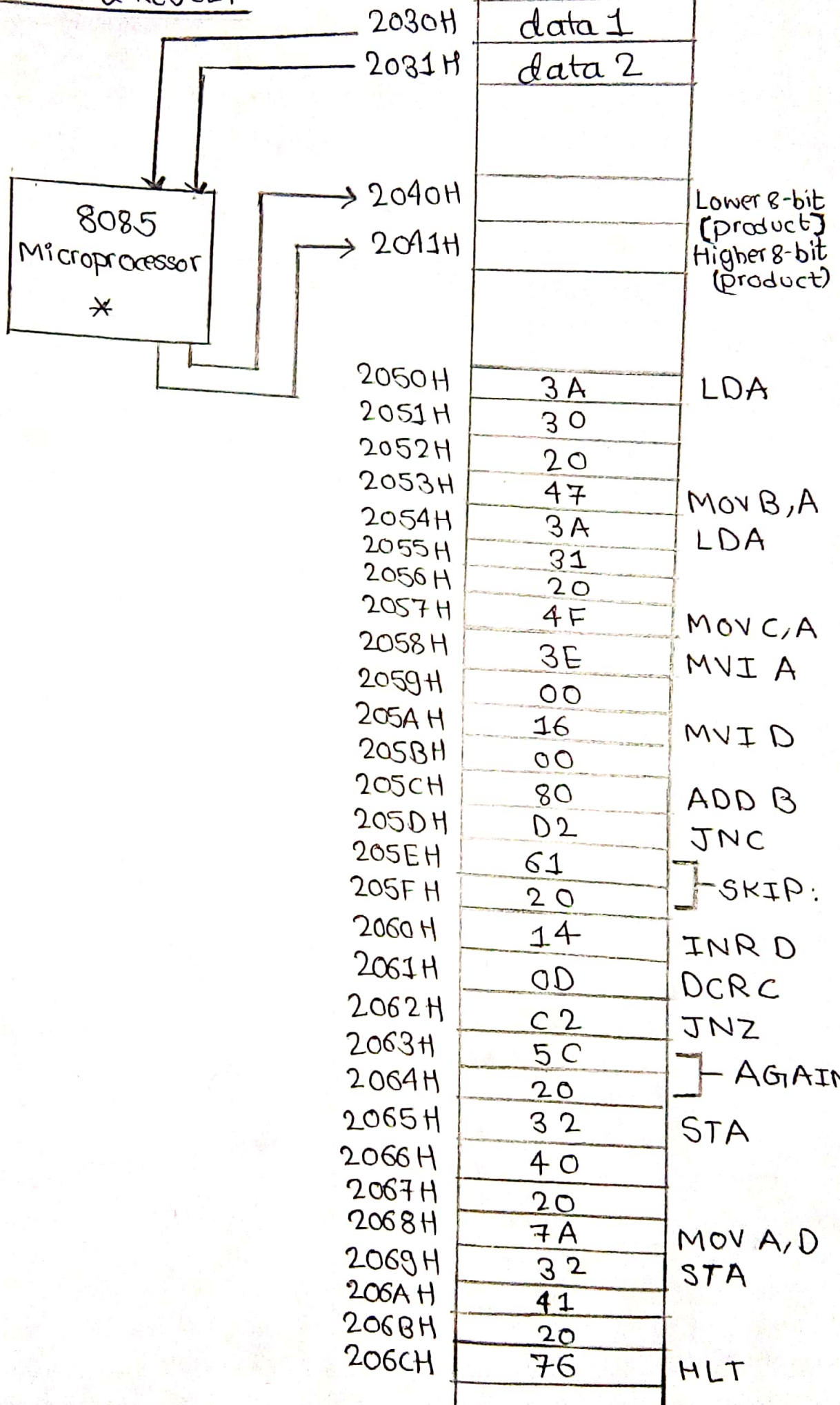
• TOOLS

- 8085 microprocessor kit.

• ASSEMBLY CODE

```
LDA 2030H
MOV B,A
LDA 2031H
MOV C,A
MVI A,00H
MVI D,00H
AGAIN: ADD B
      JNC SKIP
      INR D
SKIP:  DCR C
      JNZ AGAIN
      STA 2040H
      MOV A,D
      STA 2041H
      HLT
```

OBSERVATION & RESULT



Here, 23H is input as data 1 and 51H as data 2.
After executing the program, the product was found to be B13H at 2040H & 2041H.

- CONCLUSION

The program to multiply two 8-bit numbers can be executed using 8085 microprocessor.