**Arithmetic instructions in 8085 microprocessor**

* Difficulty Level : [Medium](https://www.geeksforgeeks.org/medium/)
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Arithmetic Instructions are the instructions which perform basic arithmetic operations such as addition, subtraction and a few more. In 8085 microprocessor, the destination operand is generally the accumulator. In 8085 microprocessor, the destination operand is generally the accumulator.

Following is the table showing the list of arithmetic instructions:

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| Opcode | Operand | Explanation | Example |
| --- | --- | --- | --- |
| ADD | R | A = A + R | ADD B |
| ADD | M | A = A + Mc | ADD 2050 |
| ADI | 8-bit data | A = A + 8-bit data | ADI 50 |
| ADC | R | A = A + R + prev. carry | ADC B |
| ADC | M | A = A + Mc + prev. carry | ADC 2050 |
| ACI | 8-bit data | A = A + 8-bit data + prev. carry | ACI 50 |
| SUB | R | A = A – R | SUB B |
| SUB | M | A = A – Mc | SUB 2050 |
| SUI | 8-bit data | A = A – 8-bit data | SUI 50 |
| SBB | R | A = A – R – prev. carry | SBB B |
| SBB | M | A = A – Mc -prev. carry | SBB 2050 |
| SBI | 8-bit data | A = A – 8-bit data – prev. carry | SBI 50 |
| INR | R | R = R + 1 | INR B |
| INR | M | M = Mc + 1 | INR 2050 |
| INX | r.p. | r.p. = r.p. + 1 | INX H |
| DCR | R | R = R – 1 | DCR B |
| DCR | M | M = Mc – 1 | DCR 2050 |
| DCX | r.p. | r.p. = r.p. – 1 | DCX H |
| DAD | r.p. | HL = HL + r.p. | DAD H |

In the table,  
R stands for register  
M stands for memory  
Mc stands for memory contents  
r.p. stands for register pair