BCD Arithmetic (5A)

BCD Examples

```
Decimal:          9          1
Binary :  0000 1001  0000 0001
```

```
Decimal:     9    1
Binary :  1001 0001
```

```
Decimal:          1     2    3     4    5
Binary :  0000 0001  0010 0011  0100 0101
```

Please send corrections (or suggestions) to youngwlim@hotmail.com.

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BCD Addition

```
1001 + 1000 = 10001
   9 +    8 =    17
```

```
10001 + 0110 = 00010111 => 0001 0111
   17 +    6 =       23       1    7
```

BCD Subtraction

```
0000 0011 0101 0111 + 1001 0101 0110 1000 = 1001 1000 1011 1111
   0    3    5    7 +    9    5    6    8 =    9    8   11   15
```

```
1001 1000 1011 1111 + 0000 0000 0110 0110 = 1001 1001 0010 0101
   9    8   11   15 +    0    0    6    6 =    9    9    2    5
```

References

[1] http://en.wikipedia.org/
[2] M. M. Mano, C. R. Kime, “Logic and Computer Design Fundamentals”, 4th ed.
[3] M. M. Mano, M. D. Ciletti, “Digital Design”, 5th ed.
[4] D. M. Harris, S. L. Harris, “Digital Design and Computer Architecture”