Z80 Routines:Math:Logarithm

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Contents

Introduction

Integer Log of base 2

```
; input: hl (16-bit integer unsigned)
; output: a = log2(hl) (rounded down and from -1 to 15) (8-bit integer signed)
log2:
        ld      a,16
        scf
log2loop:
        adc     hl,hl
        dec     a
        jr      nc,log2loop
        ret
```

Integer Log of base 10

Since log10=log2(hl)/log2(10). We can multiply by 1/log2(10).

```

```

Integer Log of base B

The same trick as above.

```
;unfinished
logB:
; input: hl = number
;        b = base
; output: a = log hl base b

        ret
```

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- This page was last modified on 17 June 2010, at 12:32.