ARMAssemblyInt:FloatingPoint:A

3.1416 decimal

.101 5/8 .625
11.011 3 3/8 3.375
11.111 3 7/8 3.875

Decimal scientific notation

electron mass .000000000000000000000000000091 kg 9.1×10^{-31} kg

universe mass 3100000000000000000000000000000000000000000000000000000 kg 3.1×10^{52} kg

Binary scientific notation

13 is 1101 or 1.101×2^3

28 11100 = 1.11×2^4
5.25 101.01 = 1.0101×2^2
.0625 .0001 = 1.0×2^{-4}

```
IEEE 64-bit format:
SEEEEEEEEEEE101MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM

5.25 is 101.01 or 1.0101 x 2^2 or

0 10000000001 0101000000000000000000000000000000000000000000000000

-23.25 is -10111.01 or -1.011101 x 2^4 or

1 10000000011 0111010000000000000000000000000000000000000000000000

.1875 is .00011 or 1.1 x 2^-4 or

0 01111111011 1000000000000000000000000000000000000000000000000000

.2 is .00110011 (repeating) or 1.100110011 (repeating) x 2^-3 or

0 01111111100 1001100110011001100110011001100110011001100110011001100

-32.5 is -100000.1 or 1.000001 x 2^5 or

1 10000000100 0000010000000000000000000000000000000000000000000000

.375 is .011 or 1.1 x 2^-2 or

0 01111111101 1000000000000000000000000000000000000000000000000000

32-bit IEEE format:

SEEEEEEEEMMMMMMMMMMMMMMMMMMMMMMM
```