

① 89.9

$$\begin{array}{l}
 89/2 = 44.2 = 1 \\
 44/2 = 22 = 0 \\
 22/2 = 11 = 0 \\
 11/2 = 5.5 = 1 \\
 5/2 = 2.5 = 1 \\
 2/2 = 1 = 0 \\
 1/2 = .5 = 1
 \end{array}$$

1011001.

11100110011001100

$$89/8 = 11.125 = 1$$

$$11/8 = 1.375 = 3$$

$$1/8 = .125 = 1$$

$$\begin{array}{rcl}
 .9 \times 2 & = & 1.8 \quad 1 \\
 .8 \times 2 & = & 1.6 \quad 1 \\
 .6 \times 2 & = & 1.2 \quad 1 \\
 .2 \times 2 & = & .4 \quad 0 \\
 .4 \times 2 & = & .8 \quad 0
 \end{array}$$

$$\begin{array}{r}
 .9 \\
 \times 8 \\
 \hline
 7.2
 \end{array}
 \quad
 \begin{array}{r}
 .2 \\
 \times 8 \\
 \hline
 1.6
 \end{array}
 \quad
 \begin{array}{r}
 .8 \\
 \times 8 \\
 \hline
 6.4
 \end{array}
 \quad
 \begin{array}{r}
 3.2 \\
 \times 8 \\
 \hline
 25.6
 \end{array}$$

131.71463-----

89.9

$$89/16 = 5.5625 = 9$$

$$5/16 = 5$$

59.E66666

$$\begin{array}{r}
 .9 \\
 \times 16 \\
 \hline
 14.4
 \end{array}$$

$$\begin{array}{r}
 .4 \\
 \times 16 \\
 \hline
 6.4
 \end{array}$$

$$\begin{array}{r}
 .4 \\
 \times 16 \\
 \hline
 6.4
 \end{array}$$

$$3.75 = \cancel{375} \times 10^{-1}$$

$$.75 \cdot 16 = 12$$

$$3.12$$

$$\boxed{3.0}$$



1111

$$1111 \cdot 2^2$$

0.

00000000

00000000

00001111

00000010

$$.7 = .7 \cdot 2^0$$

$$.10110011001100110011$$

00000000

$$89.9 \rightarrow \cancel{899} \cdot 2^2$$

$$\underline{10110011001100} \times 2^7$$

7

11.11

$$1.111 \times 2^1$$

manisa. |||

 $127 +$

12

↑
biased

01000000 || 000000000000000000000000

7

SB 0

$$.1011 \approx 2^{-1}$$

126

↑ biased

6 01111120

011 001 001 100 1 1 1 1

89.9 \rightarrow ~~Ar~~

1.011.001, 111 0011 0011 ...

SB
0

1.011001 111 0011 ... $\times 2^{\frac{7}{10}}$

\downarrow

10000101