

Divide the following binary numbers.

a)  $110 : 10$

$$\begin{array}{r} 11 \\ 10 \overline{) 110} \\ \underline{-10} \phantom{0} \\ 010 \\ \underline{-10} \\ 00 \\ \hline \end{array}$$

b)  $10110 : 10$

$$\begin{array}{r} 1011 \\ 10 \overline{) 10110} \\ \underline{-10} \phantom{00} \\ 0011 \\ \underline{-10} \phantom{0} \\ 010 \\ \underline{-10} \\ 00 \\ \hline \end{array}$$

c)  $101101 : 1.1$

$$\begin{array}{r} 11110 \\ 1.1 \overline{) 1011010} \\ \underline{-11} \phantom{00} \\ 0101 \\ \underline{-11} \phantom{00} \\ 0100 \\ \underline{-11} \phantom{00} \\ 0011 \\ \underline{-11} \\ 000 \\ \hline \end{array}$$

d)  $11001.1 : 1101$

$$\begin{array}{r} 1.1 \\ 1101 \overline{) 11001.1} \\ \underline{-1101} \phantom{00} \\ 011001 \\ \underline{-1101} \phantom{00} \\ 011001 \\ \underline{-1101} \phantom{00} \\ 01100 \\ \hline \end{array}$$

e)  $100100 : 11$

$$\begin{array}{r} 1100 \\ 11 \overline{) 100100} \\ \underline{-11} \phantom{00} \\ 0011 \\ \underline{-11} \phantom{00} \\ 0000 \\ \hline \end{array}$$

h)  $10110.1101 : 1.1$

$$\begin{array}{r} 1111.001 \\ 1.1 \overline{) 10110.1101} \\ \underline{-11} \phantom{00} \\ 0101 \\ \underline{-11} \phantom{00} \\ 0100 \\ \underline{-11} \phantom{00} \\ 0011 \\ \underline{-11} \phantom{00} \\ 00101 \\ \underline{-11} \phantom{00} \\ 010 \\ \hline \end{array}$$

f)  $110000 : 110$

$$\begin{array}{r} 1000 \\ 110 \overline{) 110000} \\ \underline{-110} \phantom{00} \\ 000000 \\ \hline \end{array}$$

g)  $1010.0 : 100$

$$\begin{array}{r} 10.1 \\ 100 \overline{) 1010.0} \\ \underline{-100} \phantom{00} \\ 00100 \\ \underline{-100} \phantom{00} \\ 000 \\ \hline \end{array}$$

$$i) 1100 : 100$$

$$\begin{array}{r} 11 \\ 100 \overline{) 1100} \\ \underline{-100} \phantom{00} \\ 0100 \\ \underline{-100} \phantom{00} \\ 0000 \end{array}$$

$$j) 101100 : 100$$

$$\begin{array}{r} 1011 \\ 100 \overline{) 101100} \\ \underline{-100} \phantom{00} \\ 00110 \\ \underline{-100} \phantom{00} \\ 0100 \\ \underline{-100} \phantom{00} \\ 0000 \end{array}$$

$$k) 1010000111011 : 1001$$

$$\begin{array}{r} 1000100001 \\ 1001 \overline{) 1010000111011} \\ \underline{-1001} \phantom{00000000000} \\ 000010011 \\ \underline{-1001} \phantom{00000000000} \\ 000011011 \\ \underline{-1001} \phantom{00000000000} \\ 010000 \end{array}$$

$$l) 111111 : 1001$$

$$\begin{array}{r} 111 \\ 1001 \overline{) 111111} \\ \underline{-1001} \phantom{00000} \\ 01101 \\ \underline{-1001} \phantom{00000} \\ 01001 \\ \underline{-1001} \phantom{00000} \\ 0000 \end{array}$$