

Year: Month: Day:

$$1. 1023 : \begin{array}{r} 1023 \cancel{12} \\ \underline{1} \quad 511 \end{array} \quad \begin{array}{r} 511 \cancel{12} \\ \underline{1} \quad 255 \end{array} \quad \begin{array}{r} 255 \cancel{12} \\ \underline{1} \quad 127 \end{array} \quad \begin{array}{r} 127 \cancel{12} \\ \underline{0} \quad 64 \end{array} \quad \begin{array}{r} 64 \cancel{12} \\ \underline{0} \quad 32 \end{array}$$

$$\begin{array}{r} 32 \cancel{12} \\ \underline{0} \quad 16 \end{array} \quad \begin{array}{r} 16 \cancel{12} \\ \underline{0} \quad 8 \end{array} \quad \begin{array}{r} 8 \cancel{12} \\ \underline{1} \quad 4 \end{array} \quad \begin{array}{r} 4 \cancel{12} \\ \underline{1} \quad 2 \end{array} \quad \text{جواب آخر } (1110000111)_2$$

$$2. 2049 : \begin{array}{r} 2049 \cancel{12} \\ \underline{1} \quad 1024 \end{array} \quad \begin{array}{r} 1024 \cancel{12} \\ \underline{0} \quad 512 \end{array} \quad \begin{array}{r} 512 \cancel{12} \\ \underline{0} \quad 256 \end{array} \quad \begin{array}{r} 256 \cancel{12} \\ \underline{0} \quad 128 \end{array}$$

$$\begin{array}{r} 128 \cancel{12} \\ \underline{0} \quad 64 \end{array} \quad \begin{array}{r} 64 \cancel{12} \\ \underline{0} \quad 32 \end{array} \quad \begin{array}{r} 32 \cancel{12} \\ \underline{0} \quad 16 \end{array} \quad \begin{array}{r} 16 \cancel{12} \\ \underline{0} \quad 8 \end{array} \quad \begin{array}{r} 8 \cancel{12} \\ \underline{1} \quad 4 \end{array} \quad \begin{array}{r} 4 \cancel{12} \\ \underline{0} \quad 2 \end{array} \quad \begin{array}{r} 2 \cancel{12} \\ \underline{0} \quad 1 \end{array}$$

$$\text{جواب آخر } (1000000000001)_2$$

$$3. 4196 : \begin{array}{r} 4196 \cancel{12} \\ \underline{0} \quad 2098 \end{array} \quad \begin{array}{r} 2098 \cancel{12} \\ \underline{0} \quad 1049 \end{array} \quad \begin{array}{r} 1049 \cancel{12} \\ \underline{1} \quad 524 \end{array} \quad \begin{array}{r} 524 \cancel{12} \\ \underline{0} \quad 262 \end{array}$$

$$\begin{array}{r} 262 \cancel{12} \\ \underline{0} \quad 131 \end{array} \quad \begin{array}{r} 131 \cancel{12} \\ \underline{1} \quad 65 \end{array} \quad \begin{array}{r} 65 \cancel{12} \\ \underline{1} \quad 32 \end{array} \quad \begin{array}{r} 32 \cancel{12} \\ \underline{0} \quad 16 \end{array} \quad \begin{array}{r} 16 \cancel{12} \\ \underline{0} \quad 8 \end{array} \quad \begin{array}{r} 8 \cancel{12} \\ \underline{0} \quad 4 \end{array} \quad \begin{array}{r} 4 \cancel{12} \\ \underline{0} \quad 2 \end{array} \quad \begin{array}{r} 2 \cancel{12} \\ \underline{0} \quad 1 \end{array}$$

$$\text{جواب آخر } (1000001100100)_2$$

$$4. 1044 : \begin{array}{r} 1044 \cancel{12} \\ \underline{0} \quad 522 \end{array} \quad \begin{array}{r} 522 \cancel{12} \\ \underline{0} \quad 261 \end{array} \quad \begin{array}{r} 261 \cancel{12} \\ \underline{1} \quad 130 \end{array} \quad \begin{array}{r} 130 \cancel{12} \\ \underline{0} \quad 65 \end{array}$$

$$\begin{array}{r} 65 \cancel{12} \\ \underline{1} \quad 32 \end{array} \quad \begin{array}{r} 32 \cancel{12} \\ \underline{0} \quad 16 \end{array} \quad \begin{array}{r} 16 \cancel{12} \\ \underline{0} \quad 8 \end{array} \quad \begin{array}{r} 8 \cancel{12} \\ \underline{0} \quad 4 \end{array} \quad \begin{array}{r} 4 \cancel{12} \\ \underline{0} \quad 2 \end{array} \quad \begin{array}{r} 2 \cancel{12} \\ \underline{0} \quad 1 \end{array}$$

$$\text{جواب آخر } (10000010100)_2$$

$$5. 3000 : \begin{array}{r} 3000 \cancel{12} \\ \underline{0} \quad 1500 \end{array} \quad \begin{array}{r} 1500 \cancel{12} \\ \underline{0} \quad 750 \end{array} \quad \begin{array}{r} 750 \cancel{12} \\ \underline{0} \quad 375 \end{array} \quad \begin{array}{r} 375 \cancel{12} \\ \underline{1} \quad 187 \end{array}$$

$$\begin{array}{r} 187 \cancel{12} \\ \underline{1} \quad 93 \end{array} \quad \begin{array}{r} 93 \cancel{12} \\ \underline{1} \quad 46 \end{array} \quad \begin{array}{r} 46 \cancel{12} \\ \underline{0} \quad 23 \end{array} \quad \begin{array}{r} 23 \cancel{12} \\ \underline{1} \quad 11 \end{array} \quad \begin{array}{r} 11 \cancel{12} \\ \underline{1} \quad 5 \end{array} \quad \begin{array}{r} 5 \cancel{12} \\ \underline{1} \quad 2 \end{array} \quad \begin{array}{r} 2 \cancel{12} \\ \underline{0} \quad 1 \end{array}$$

$$\text{جواب آخر } (1011011000)_2$$

Year:..... Month:..... Day:.....

$$6-2004: \begin{array}{r} 2004 \\ \div 100 \\ \hline 20 \\ \text{Rem} 4 \end{array} \quad \begin{array}{r} 100 \\ \div 10 \\ \hline 10 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 10 \\ \div 10 \\ \hline 1 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 4 \\ \div 10 \\ \hline 0 \\ \text{Rem} 4 \end{array} \quad \begin{array}{r} 4 \\ \div 10 \\ \hline 0 \\ \text{Rem} 4 \end{array}$$

$$\begin{array}{r} 42 \\ \div 31 \\ \hline 1 \\ \text{Rem} 11 \end{array} \quad \begin{array}{r} 31 \\ \div 16 \\ \hline 1 \\ \text{Rem} 15 \end{array} \quad \begin{array}{r} 15 \\ \div 7 \\ \hline 2 \\ \text{Rem} 1 \end{array} \quad \begin{array}{r} 1 \\ \div 3 \\ \hline 0 \\ \text{Rem} 1 \end{array} \quad \begin{array}{r} 1 \\ \div 1 \\ \hline 1 \\ \text{Rem} 0 \end{array}$$

جواب آخر $(11111010100)_2$

$$7-5300: \begin{array}{r} 5300 \\ \div 140 \\ \hline 37 \\ \text{Rem} 120 \end{array} \quad \begin{array}{r} 140 \\ \div 1320 \\ \hline 0 \\ \text{Rem} 140 \end{array} \quad \begin{array}{r} 1320 \\ \div 442 \\ \hline 2 \\ \text{Rem} 436 \end{array} \quad \begin{array}{r} 442 \\ \div 331 \\ \hline 1 \\ \text{Rem} 111 \end{array}$$

$$\begin{array}{r} 331 \\ \div 140 \\ \hline 2 \\ \text{Rem} 51 \end{array} \quad \begin{array}{r} 140 \\ \div 82 \\ \hline 1 \\ \text{Rem} 58 \end{array} \quad \begin{array}{r} 82 \\ \div 41 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 41 \\ \div 16 \\ \hline 2 \\ \text{Rem} 9 \end{array} \quad \begin{array}{r} 9 \\ \div 16 \\ \hline 0 \\ \text{Rem} 9 \end{array} \quad \begin{array}{r} 9 \\ \div 16 \\ \hline 0 \\ \text{Rem} 9 \end{array} \quad \begin{array}{r} 9 \\ \div 16 \\ \hline 0 \\ \text{Rem} 9 \end{array} \quad \begin{array}{r} 9 \\ \div 16 \\ \hline 0 \\ \text{Rem} 9 \end{array}$$

جواب آخر $(1010010100100)_2$

$$8-2272: \begin{array}{r} 2272 \\ \div 1104 \\ \hline 2 \\ \text{Rem} 1064 \end{array} \quad \begin{array}{r} 1104 \\ \div 552 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 552 \\ \div 276 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 276 \\ \div 138 \\ \hline 2 \\ \text{Rem} 0 \end{array}$$

$$\begin{array}{r} 138 \\ \div 69 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 69 \\ \div 34 \\ \hline 2 \\ \text{Rem} 1 \end{array} \quad \begin{array}{r} 34 \\ \div 17 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 17 \\ \div 8 \\ \hline 2 \\ \text{Rem} 1 \end{array} \quad \begin{array}{r} 8 \\ \div 4 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 4 \\ \div 2 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 2 \\ \div 1 \\ \hline 2 \\ \text{Rem} 0 \end{array}$$

جواب آخر $(100010100100)_2$

$$9-7994: \begin{array}{r} 7994 \\ \div 994 \\ \hline 8 \\ \text{Rem} 102 \\ \text{Rem} 102 \end{array} \quad \begin{array}{r} 994 \\ \div 497 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 497 \\ \div 248 \\ \hline 2 \\ \text{Rem} 1 \end{array} \quad \begin{array}{r} 248 \\ \div 124 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 124 \\ \div 62 \\ \hline 2 \\ \text{Rem} 0 \end{array}$$

$$\begin{array}{r} 62 \\ \div 31 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 31 \\ \div 16 \\ \hline 1 \\ \text{Rem} 15 \end{array} \quad \begin{array}{r} 15 \\ \div 7 \\ \hline 2 \\ \text{Rem} 1 \end{array} \quad \begin{array}{r} 1 \\ \div 3 \\ \hline 0 \\ \text{Rem} 1 \end{array} \quad \begin{array}{r} 1 \\ \div 1 \\ \hline 1 \\ \text{Rem} 0 \end{array}$$

جواب آخر $(111110101010)_2$

$$10-3665: \begin{array}{r} 3665 \\ \div 1832 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 1832 \\ \div 916 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 916 \\ \div 458 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 458 \\ \div 229 \\ \hline 2 \\ \text{Rem} 0 \end{array}$$

$$\begin{array}{r} 229 \\ \div 114 \\ \hline 2 \\ \text{Rem} 1 \end{array} \quad \begin{array}{r} 114 \\ \div 57 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 57 \\ \div 28 \\ \hline 2 \\ \text{Rem} 1 \end{array} \quad \begin{array}{r} 28 \\ \div 14 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 14 \\ \div 7 \\ \hline 2 \\ \text{Rem} 0 \end{array} \quad \begin{array}{r} 7 \\ \div 3 \\ \hline 2 \\ \text{Rem} 1 \end{array} \quad \begin{array}{r} 3 \\ \div 1 \\ \hline 3 \\ \text{Rem} 0 \end{array}$$

جواب آخر $(111010100010)_2$