

BUILDING NUMBER SYSTEMS ANSWERS TO FINAL TEST

1) MMCMLX

2) MCCCLXLVIII

$$\begin{array}{r} 3) \quad 100110_{\text{two}} \\ + \quad 110011_{\text{two}} \\ \hline 1011001_{\text{two}} \end{array}$$

$$\begin{array}{r} 4) \quad 10110001_{\text{two}} \\ + \quad 11000101_{\text{two}} \\ \hline 101110110_{\text{two}} \end{array}$$

$$\begin{array}{r} 5) \quad 1000111_{\text{two}} \\ + \quad 11101_{\text{two}} \\ \hline 1100100_{\text{two}} \end{array}$$

$$\begin{array}{r} 6) \quad 1100101_{\text{two}} \\ - - \quad 1001100_{\text{two}} \\ \hline 11001_{\text{two}} \end{array}$$

$$\begin{array}{r} 7) \quad 1011101_{\text{two}} \\ - - \quad 1001010_{\text{two}} \\ \hline 10011_{\text{two}} \end{array}$$

$$\begin{array}{r} 8) \quad 1110101_{\text{two}} \\ - - \quad 111001_{\text{two}} \\ \hline 111100_{\text{two}} \end{array}$$

$$\begin{array}{r} 9) \quad 110111 \\ \times \quad 101_{\text{two}} \\ \hline 100010011 \end{array}$$

$$\begin{array}{r} 10) \quad 101110 \\ \times \quad 1101_{\text{two}} \\ \hline 1001010110 \end{array}$$

$$\begin{array}{r} 11) \quad 1011010 \\ \times \quad 111_{\text{two}} \\ \hline 1001110110 \end{array}$$

$$12) \quad 100000 \overline{) 100100000}^{\text{two}} \quad \begin{array}{r} 1001 \\ \hline \end{array}$$

$$13) \quad 1010 \overline{) 101101000}^{\text{two}} \quad \begin{array}{r} 100100 \\ \hline \end{array}$$

14) $64_{\text{ten}} = \underline{100}_{\text{eight}}$

15) $123_{\text{eight}} = \underline{83}_{\text{ten}}$

$$\begin{array}{r} 16) \quad 5471 \\ + \quad 4432_{\text{Eight}} \\ \hline 12123_{\text{Eight}} \end{array}$$

$$\begin{array}{r} 17) \quad 2623 \\ + \quad 5255_{\text{Eight}} \\ \hline 10100_{\text{Eight}} \end{array}$$

$$\begin{array}{r} 18) \quad 4716 \\ + \quad 5433_{\text{Eight}} \\ \hline 12351_{\text{Eight}} \end{array}$$

$$\begin{array}{r} 19) \quad 3275 \\ - - \quad 2626_{\text{Eight}} \\ \hline 447_{\text{Eight}} \end{array}$$

$$\begin{array}{r} 20) \quad 5471 \\ - - \quad 4432_{\text{Eight}} \\ \hline 1037_{\text{Eight}} \end{array}$$

$$\begin{array}{r} 21) \quad 5433 \\ - - \quad 4716_{\text{Eight}} \\ \hline 515_{\text{Eight}} \end{array}$$

$$\begin{array}{r} 19) \quad 1725 \\ - - \quad 1430_{\text{Ten}} \\ \hline 304_{\text{Ten}} \end{array}$$

$$\begin{array}{r} 20) \quad 2873 \\ - - \quad 2330_{\text{Ten}} \\ \hline 543_{\text{Ten}} \end{array}$$

$$\begin{array}{r} 21) \quad 2843 \\ - - \quad 2510_{\text{Ten}} \\ \hline 333_{\text{Ten}} \end{array}$$

$$\begin{array}{r} 22) \quad 2375 \\ \times \quad 76_{\text{Eight}} \\ \hline 232506_{\text{Eight}} \end{array}$$

$$\begin{array}{r} 23) \quad 1463 \\ \times \quad 136_{\text{Eight}} \\ \hline 226272_{\text{Eight}} \end{array}$$

$$\begin{array}{r} 24) \quad 6543 \\ \times \quad 47_{\text{Eight}} \\ \hline 405025_{\text{Eight}} \end{array}$$

25) $64_{\text{ten}} = \underline{40}_{\text{sixteen}}$

26) $1f_{\text{sixteen}} = \underline{31}_{\text{ten}}$

$$\begin{array}{r} 27) \quad 54c7_{\text{sixteen}} \\ + \quad 3956_{\text{sixteen}} \\ \hline 8e1d_{\text{sixteen}} \end{array}$$

$$\begin{array}{r} 28) \quad 3f99_{\text{sixteen}} \\ + \quad 76c6_{\text{sixteen}} \\ \hline b65f_{\text{sixteen}} \end{array}$$

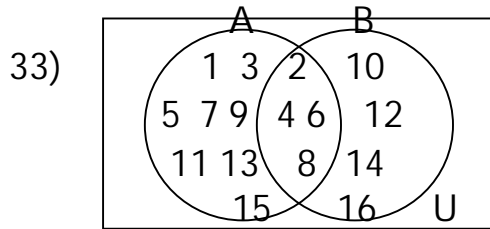
$$\begin{array}{r} 29) \quad 2457_{\text{sixteen}} \\ + \quad 6678_{\text{sixteen}} \\ \hline 8acf_{\text{sixteen}} \end{array}$$

- 30) 1,000,000
 17,576,000
 17,576,000
 308,915,776
 2,565,726,409

31) {12,13,14,15}

32) {21,22,23...}

U = the set of all natural numbers.



$A \cap B = \{2, 4, 6, 8\}$
 $A \cup B = \{1, 2, 3, \dots, 16\}$
 $(A \cup B)' = \{17, 18, 19, \dots\}$