World of Electronics Study
Electronics Study from basic to advanced

Basic Electronics Series

Assignment Lesson One: Primary Math Concepts Answers

1. Convert the following decimal Numbers to BCD
   A. 54= 0101 0100
   B. 362= 0011 0110 0010
   C. 999= 1001 1001 1001

2. Convert the following BCD to decimal Numbers
   A. 0101 1000 = 58
   B. 1001 0110 = 96
   C. 0001 0100 = 14

3. Add the following values and express your answer in scientific notation:
   A. $22x10^{3} + 120x10^{4} = 2.2x10^{4}+120x10^{4}= 122.2x10^{4}$
   B. $100x10^{-6} + 3.3x10^{-5} = 100x10^{-6} + 33x10^{-6}= 133x10^{-6}$
   C. $15x10^{-3}+680x10^{-6} =15000x10^{-6}+680x10^{-6}=15680x10^{-6}=1.568x10^{-2}$

4. Multiply the following values and express your answer in scientific notation:
   A. $(24x10^{2}) x (160x10^{-3}) = (24x160)x10^{-1}=3840x10^{-1}=3.84x10^{+2}$
   B. $(250x10^{-6}) x (.003x10^{+3}) = .75x10^{-3}=7.5x10^{-4}$
   C. $(.18x10^{-3}) x (47x10^{-5}) = 8.46x10^{-8}$

5. Express the following in Engineering notation:
   A. 68000 = $68x10^{+3}$
   B. .0047 = $4.7x10^{-3}$
   C. .000022 = $22x10^{-6}$

6. Express the following hexadecimal numbers in decimal notation:
   A. 0F = 15
   B. 4A = 74
   C. FFFF = 65535
   D. 1000 = 4096