80c, 82c
67d, 68, 71d, 72d, 77
6sc, 6sd (same)
64c, 64d (8-bit ones complement)
- 57r, 58c, 59c, 60c, 61c

A. You know the answers
    - Make
    - Chapter 1

Homework
56. Define the purpose of the following 32-bit Visual C++ directives:
   (a) char
   (b) short
   (c) int
   (d) float
   (e) double

57. Convert the following binary numbers into decimal:
   (a) 1101.01
   (b) 111001.0011
   (c) 101011.0101
   (d) 111.0001

58. Convert the following octal numbers into decimal:
   (a) 234.5
   (b) 12.3
   (c) 7767.07
   (d) 123.45
   (e) 72.72

59. Convert the following hexadecimal numbers into decimal:
   (a) A3.3
   (b) 129.C
   (c) AC.DC
   (d) FAB.3
   (e) BB8.0D

60. Convert the following decimal integers into binary, octal, and hexadecimal:
   (a) 23
   (b) 107
   (c) 1238
   (d) 92
   (e) 173

61. Convert the following decimal numbers into binary, octal, and hexadecimal:
   (a) 0.625
   (b) .00390625
   (c) .62890625
   (d) 0.75
   (e) .9375

62. Convert the following hexadecimal numbers into binary-coded hexadecimal code (BCH):
   (a) 23
   (b) AD4
   (c) 34.AD
   (d) BD32
   (e) 234.3

63. Convert the following binary-coded hexadecimal numbers into hexadecimal:
   (a) 1100 0010
   (b) 0001 0000 1111 1101
   (c) 1011 1100
   (d) 0001 0000
   (e) 1000 1011 1010

64. Convert the following binary numbers to the one’s complement form:
   (a) 1000 1000
   (b) 0101 1010
80. Convert the following BCD numbers (assume that these are packed numbers) to decimal:

\[
\begin{align*}
10010001 & (p) \\
01001100 & (q) \\
10100000 & (a) \\
01010001 & (a)
\end{align*}
\]

81. Convert the following binary numbers into signed decimal numbers:

\[
\begin{align*}
0001 & (p) \\
10 & (q) \\
+4 & (q) \\
+2 & (q)
\end{align*}
\]

78. Convert the following decimal numbers into both packed and unpacked BCD forms:

77. Decide an assembler directive to store a 12345 hexadecimal into memory.

76. What is the difference between the byte and the word in the memory? Why are 8-bit data bigger than 8-bit words?

75. Show how the following 16-bit hexadecimal numbers are stored in the memory system (use ASCII characters):

\[
\begin{align*}
1001 & (p) \\
1101 & (q) \\
1111 & (a)
\end{align*}
\]

74. Use an assembler directive to store the bytes into the memory.

73. Use an assembler directive to store the bytes into the memory. What is the difference between the byte and the word in the memory? Why are 8-bit data bigger than 8-bit words?

72. Convert the following decimal numbers into signed binary words:

\[
\begin{align*}
-9 & (p) \\
001 & (q) \\
12 & (q) \\
+2 & (q)
\end{align*}
\]

71. Convert the following decimal numbers into 8-bit signed binary numbers:

70. Use an assembler directive to store the ASCII character strings. What is the difference between the byte and the word in the memory? Why are 8-bit data bigger than 8-bit words?

69. Where is the instruction?

68. What is the ASCII code for the Enter key and what is its purpose?

67. Convert the following words into ASCII-coded character strings:

66. Define upper- and lowercase:

\[
\begin{align*}
00000001 & (p) \\
11110101 & (q) \\
00110101 & (q) \\
10000001 & (a)
\end{align*}
\]

65. Convert the following binary numbers to the two's complement form:

\[
\begin{align*}
00000001 & (p) \\
11111110 & (q)
\end{align*}
\]
81. Convert the following decimal numbers into single-precision floating-point numbers:
   (a) +1.5
   (b) −10.625
   (c) +100.25
   (d) −1200

82. Convert the following single-precision floating-point numbers into decimal numbers:
   (a) 0 10000000 110000000000000000000000
   (b) 1 01111111 000000000000000000000000
   (c) 0 10000010 100100000000000000000000

83. Use the Internet to write a short report about any one of the following computer pioneers:
   (a) Charles Babbage
   (b) Konrad Zuse
   (c) Joseph Jacquard
   (d) Herman Hollerith

84. Use the Internet to write a short report about any one of the following computer languages:
   (a) COBOL
   (b) ALGOL
   (c) FORTRAN
   (d) PASCAL

85. Use the Internet to write a short report detailing the features of the Itanium 2 microprocessor.

86. Use the Internet to detail the Intel 45 nm (nanometer) fabrication technology.