**122802, 122411, 122784, 122151**

**ICS2104: Computer Organization and Architecture**

**Assignment 2**

Enter 1 to print conversion table

1

Decimal Binary Hexadecimal

0 00000000 0

1 00000000 1

2 00000001 2

3 00000001 3

4 00000010 4

5 00000010 5

6 00000011 6

7 00000011 7

8 00000100 8

9 00000100 9

10 00000101 a

11 00000101 b

12 00000110 c

13 00000110 d

14 00000111 e

15 00000111 f

16 00001000 10

17 00001000 11

18 00001001 12

19 00001001 13

20 00001010 14

21 00001010 15

22 00001011 16

23 00001011 17

24 00001100 18

25 00001100 19

26 00001101 1a

27 00001101 1b

28 00001110 1c

29 00001110 1d

30 00001111 1e

31 00001111 1f

32 00010000 20

33 00010000 21

34 00010001 22

35 00010001 23

36 00010010 24

37 00010010 25

38 00010011 26

39 00010011 27

40 00010100 28

41 00010100 29

42 00010101 2a

43 00010101 2b

44 00010110 2c

45 00010110 2d

46 00010111 2e

47 00010111 2f

48 00011000 30

49 00011000 31

50 00011001 32

51 00011001 33

52 00011010 34

53 00011010 35

54 00011011 36

55 00011011 37

56 00011100 38

57 00011100 39

58 00011101 3a

59 00011101 3b

60 00011110 3c

61 00011110 3d

62 00011111 3e

63 00011111 3f

64 00100000 40

65 00100000 41

66 00100001 42

67 00100001 43

68 00100010 44

69 00100010 45

70 00100011 46

71 00100011 47

72 00100100 48

73 00100100 49

74 00100101 4a

75 00100101 4b

76 00100110 4c

77 00100110 4d

78 00100111 4e

79 00100111 4f

80 00101000 50

81 00101000 51

82 00101001 52

83 00101001 53

84 00101010 54

85 00101010 55

86 00101011 56

87 00101011 57

88 00101100 58

89 00101100 59

90 00101101 5a

91 00101101 5b

92 00101110 5c

93 00101110 5d

94 00101111 5e

95 00101111 5f

96 00110000 60

97 00110000 61

98 00110001 62

99 00110001 63

100 00110010 64

101 00110010 65

102 00110011 66

103 00110011 67

104 00110100 68

105 00110100 69

106 00110101 6a

107 00110101 6b

108 00110110 6c

109 00110110 6d

110 00110111 6e

111 00110111 6f

112 00111000 70

113 00111000 71

114 00111001 72

115 00111001 73

116 00111010 74

117 00111010 75

118 00111011 76

119 00111011 77

120 00111100 78

121 00111100 79

122 00111101 7a

123 00111101 7b

124 00111110 7c

125 00111110 7d

126 00111111 7e

127 00111111 7f

128 01000000 80

129 01000000 81

130 01000001 82

131 01000001 83

132 01000010 84

133 01000010 85

134 01000011 86

135 01000011 87

136 01000100 88

137 01000100 89

138 01000101 8a

139 01000101 8b

140 01000110 8c

141 01000110 8d

142 01000111 8e

143 01000111 8f

144 01001000 90

145 01001000 91

146 01001001 92

147 01001001 93

148 01001010 94

149 01001010 95

150 01001011 96

151 01001011 97

152 01001100 98

153 01001100 99

154 01001101 9a

155 01001101 9b

156 01001110 9c

157 01001110 9d

158 01001111 9e

159 01001111 9f

160 01010000 a0

161 01010000 a1

162 01010001 a2

163 01010001 a3

164 01010010 a4

165 01010010 a5

166 01010011 a6

167 01010011 a7

168 01010100 a8

169 01010100 a9

170 01010101 aa

171 01010101 ab

172 01010110 ac

173 01010110 ad

174 01010111 ae

175 01010111 af

176 01011000 b0

177 01011000 b1

178 01011001 b2

179 01011001 b3

180 01011010 b4

181 01011010 b5

182 01011011 b6

183 01011011 b7

184 01011100 b8

185 01011100 b9

186 01011101 ba

187 01011101 bb

188 01011110 bc

189 01011110 bd

190 01011111 be

191 01011111 bf

192 01100000 c0

193 01100000 c1

194 01100001 c2

195 01100001 c3

196 01100010 c4

197 01100010 c5

198 01100011 c6

199 01100011 c7

200 01100100 c8

201 01100100 c9

202 01100101 ca

203 01100101 cb

204 01100110 cc

205 01100110 cd

206 01100111 ce

207 01100111 cf

208 01101000 d0

209 01101000 d1

210 01101001 d2

211 01101001 d3

212 01101010 d4

213 01101010 d5

214 01101011 d6

215 01101011 d7

216 01101100 d8

217 01101100 d9

218 01101101 da

219 01101101 db

220 01101110 dc

221 01101110 dd

222 01101111 de

223 01101111 df

224 01110000 e0

225 01110000 e1

226 01110001 e2

227 01110001 e3

228 01110010 e4

229 01110010 e5

230 01110011 e6

231 01110011 e7

232 01110100 e8

233 01110100 e9

234 01110101 ea

235 01110101 eb

236 01110110 ec

237 01110110 ed

238 01110111 ee

239 01110111 ef

240 01111000 f0

241 01111000 f1

242 01111001 f2

243 01111001 f3

244 01111010 f4

245 01111010 f5

246 01111011 f6

247 01111011 f7

248 01111100 f8

249 01111100 f9

250 01111101 fa

251 01111101 fb

252 01111110 fc

253 01111110 fd

254 01111111 fe

255 01111111 ff

256 10000000 100

C:\Users\Osoro\source\repos\decimalToBinary\numberSystem\_2a\x64\Debug\numberSystem.exe (process 20988) exited with code 0.

To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.

Press any key to close this window . . .

2b.

enter 1 to convert decimal to binary

enter any other number to exit

1

Enter decimal fraction to convert to binary

10

Decimal Binary Remark

10 1010.00000 exact

enter 1 to convert decimal to binary 0 to exit

1

Enter decimal fraction to convert to binary

5.25

Decimal Binary Remark

5.25 101.01000 exact

enter 1 to convert decimal to binary 0 to exit

1

Enter decimal fraction to convert to binary

90.7

Decimal Binary Remark

90.7 1011010.10110 approximate

enter 1 to convert decimal to binary 0 to exit

Enter 1 to convert random numbers generated

Enter 2 to input decimal number to convert

1

Decimal Binary Remark

35.0353 100011.00001 approximate

Decimal Binary Remark

86.3329 1010110.01010 approximate

Decimal Binary Remark

47.3673 101111.01011 approximate

Decimal Binary Remark

22.5977 10110.10011 approximate

Decimal Binary Remark

21.7944 10101.11001 approximate

Decimal Binary Remark

31.2982 11111.01001 approximate

Decimal Binary Remark

16.379 10000.01100 approximate

Decimal Binary Remark

72.8745 1001000.11011 approximate

Decimal Binary Remark

94.9244 1011110.11101 approximate

Decimal Binary Remark

14.2919 1110.01001 approximate

Decimal Binary Remark

28.8238 11100.11010 approximate

Decimal Binary Remark

87.1204 1010111.00011 approximate

Decimal Binary Remark

56.8807 111000.11100 approximate

Decimal Binary Remark

38.1932 100110.00110 approximate

Decimal Binary Remark

72.8451 1001000.11011 approximate

Decimal Binary Remark

31.1907 11111.00110 approximate

Decimal Binary Remark

41.1102 101001.00011 approximate

Decimal Binary Remark

97.9444 1100001.11110 approximate

Decimal Binary Remark

89.4696 1011001.01111 approximate

Decimal Binary Remark

16.1005 10000.00011 approximate

Decimal Binary Remark

24.7053 11000.10110 approximate

Decimal Binary Remark

38.6522 100110.10100 approximate

Decimal Binary Remark

97.314 1100001.01010 approximate

Decimal Binary Remark

77.9327 1001101.11101 approximate

Decimal Binary Remark

54.7378 110110.10111 approximate

Decimal Binary Remark

85.7068 1010101.10110 approximate

Decimal Binary Remark

68.1294 1000100.00100 approximate

Decimal Binary Remark

21.2885 10101.01001 approximate

Decimal Binary Remark

43.1419 101011.00100 approximate

Decimal Binary Remark

12.504 1100.10000 approximate

C:\Users\Osoro\source\repos\convertion\Debug\convertion.exe (process 24588) exited with code 0.

To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.

Press any key to close this window . . .