#### **HW 1-1**

<b>Due</b> Aug 19 at 11:59pm	Points 13	Questions 5	Available until Aug 19 at 11:59pm	Time Limit None	Allowed Attempts 2	
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### Instructions

Complete the following problems from chapter 1 of your text book. Solutions will be turned on after due date/time.

Average Time: 1 hour.

This quiz was locked Aug 19 at 11:59pm.

#### **Attempt History**

	Attempt	Time	Score
KEPT	Attempt 2	6 minutes	13 out of 13
LATEST	Attempt 2	6 minutes	13 out of 13
	Attempt 1	1,410 minutes	10 out of 13

Score for this attempt: **13** out of 13 Submitted Aug 18 at 9:32pm This attempt took 6 minutes.

Question 1 1 / 1 pts

## 1.1 What is the two's complement of 11011101?

Keep your answers to the smallest 4 bit (nibble) boundary as possible. If your answer exceeds 4 bits, you may enter your answer in 1 of 2 formats:

- 1. 4 bit nibbles with one (1) space between: #### #####
- 2. 8 bit word with no spaces and including all 8 bits: #######

All other formats will be marked invalid! You know canvas is unforgiving and I will not be going back and hand grading because you failed to follow simple instructions:)

This solution requires 8 bits.

Answer:



Correct Answers 0010 0011 001100111

Question 2 6 / 6 pts

# 1.2 Perform the base conversions to fill in the blank spaces in the following table:

Ensure that you adhere to the 8 bit formatting rules mentioned in problem 1.1.

For Base 16 answers, always leave off the 'h' at the end (i.e.  $17_{10} = D9$ ). If the base 16 result exceeds 2 hex characters, keep on an 1-byte( 8 bit) boundary separated by a space.

Examples:

 $A01_{16} = 0A 01$ 

For Base 21 answers, keep the same spacing rules as Base 16 if (and only if) answers exceed two (2) base 21 characters (i.e.  $800_{10} = 01 \text{ H2}$ , **NOT** 1H2).

BASE 10	BASE 2	BASE 16	BASE 21	
23	0001 0111	17	12	
19	0001 0011	13	OJ	
2747	1010 1011 1011	0A BB	06 4H	
1253	0100 1110 0101	04 E5	02 HE	

Answer 1:

Correct!

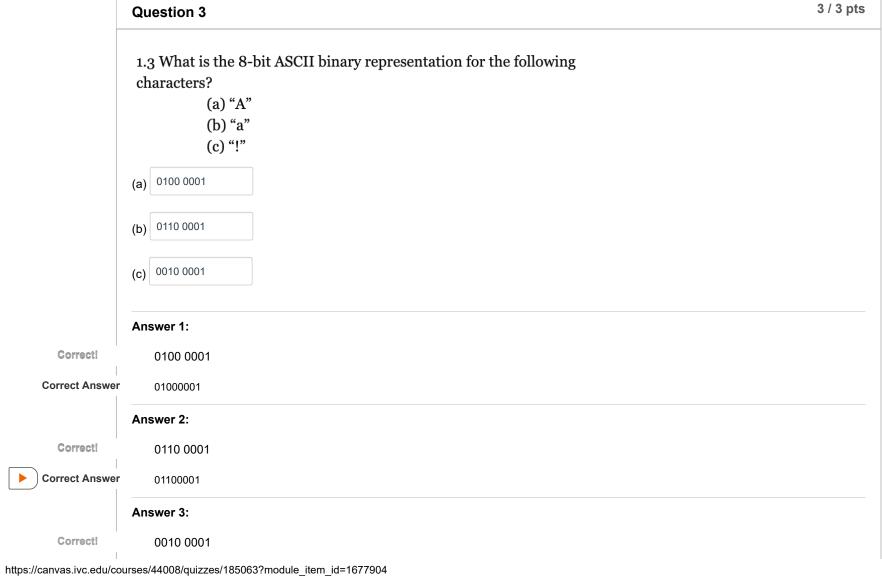
0001 0111

**Correct Answer** 

00010111

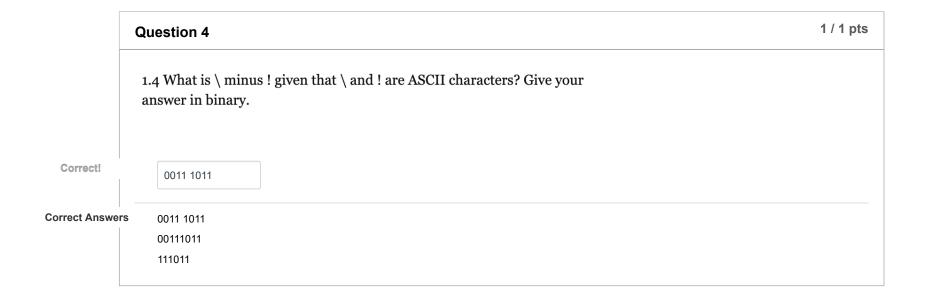
	Answer 2:
Correct!	17
	Answer 3:
Correct!	12
	Answer 4:
Correct!	19
	Answer 5:
Correct!	13
	Answer 6:
You Answered	OJ
Correct Answer	J
	Answer 7:
Correct!	2747
	Answer 8:
Correct!	1010 1011 1011
Correct Answer	101010111011
	Answer 9:
You Answered	06 4H
Correct Answer	64H
	Answer 10:
Correct!	1253
	Answer 11:
Correct!	0100 1110 0101

Correct Answer	010011100101			
	Answer 12:			
Correct!	04 E5			
Correct Answer	04E5			



**Correct Answer** 

00100001



Question 5 2 / 2 pts

- 1.5 Representing characters:
  - (a) Convert the string "Super!" to its ASCII representation. Show your result as a sequence of hexadecimal values.
  - (b) Convert the hexadecimal sequence into a sequence of values in base four.

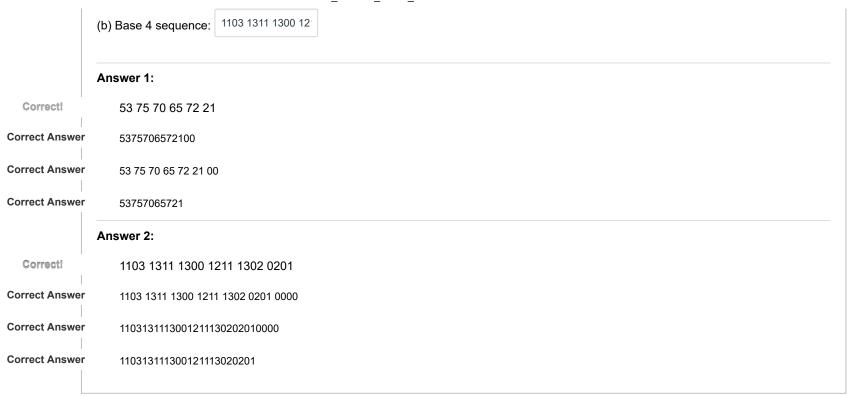
Trick question here. From C++, what you know that all strings end with? Even though this is a string, use two (2) hex characters for the formating of each ASCII value and separate them with a single space.

(a) Ascii representation (with spaces):

53 75 70 65 72 21

For base 4, your going to need to put a space to separate each number. Also in order to not have dozens of correct answers, just provide your answer using the smallest number of digits for each number (i.e.  $21_{10} = 111$ ;  $6_{10} = 12$ ).





Quiz Score: 13 out of 13

