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Courseware (/courses/HKUSTx/ELEC1200.1x/3T2014/courseware)   Course Info (/courses/HKUSTx/ELEC1200.1x/3T2014/info)

Course Outline (/courses/HKUSTx/ELEC1200.1x/3T2014/05fb01b36df14eb99ab54545dabc47f6/)

Grading Scheme (/courses/HKUSTx/ELEC1200.1x/3T2014/6e2be4dac3e44b4d9f812e7b5a5d5a29/)

Instructors (/courses/HKUSTx/ELEC1200.1x/3T2014/674fdd6887fe4f4bb73b984df4a5675b/)

Resources (/courses/HKUSTx/ELEC1200.1x/3T2014/a6a8267fef364cccbccd0128d091f11c/)

Discussion (/courses/HKUSTx/ELEC1200.1x/3T2014/discussion/forum)

Progress (/courses/HKUSTx/ELEC1200.1x/3T2014/progress)

1.3 QUIZ QUESTION 1 (1/1 point)

The ASCII table below gives the ASCII codes for common alphanumeric characters and symbols listed from MSB to LSB. What is the bit sequence encoding the message "**Hi**"? Assume that we transmit the codes of each character in sequence with the LSB first.

0	0011 0000	O	0100 1111	m	0110 1101	
1	0011 0001	P	0101 0000	n	0110 1110	
2	0011 0010	Q	0101 0001	o	0110 1111	
3	0011 0011	R	0101 0010	p	0111 0000	
4	0011 0100	S	0101 0011	q	0111 0001	
5	0011 0101	T	0101 0100	r	0111 0010	
6	0011 0110	U	0101 0101	s	0111 0011	
7	0011 0111	V	0101 0110	t	0111 0100	
8	0011 1000	W	0101 0111	u	0111 0101	
9	0011 1001	X	0101 1000	v	0111 0110	
A	0100 0001	Y	0101 1001	w	0111 0111	
B	0100 0010	Z	0101 1010	x	0111 1000	
C	0100 0011	a	0110 0001	y	0111 1001	
D	0100 0100	b	0110 0010	z	0111 1010	
E	0100 0101	c	0110 0011	.	0010 1110	
F	0100 0110	d	0110 0100	,	0010 0111	
G	0100 0111	e	0110 0101	:	0011 1010	
H	0100 1000	f	0110 0110	;	0011 1011	
I	0100 1001	g	0110 0111	?	0011 1111	
J	0100 1010	h	0110 1000	!	0010 0001	
K	0100 1011	i	0110 1001	'	0010 1100	
L	0100 1100	j	0110 1010	"	0010 0010	
M	0100 1101	k	0110 1011	(	0010 1000	
N	0100 1110	l	0110 1100	)	0010 1001	
				space	0010 0000	

Input the bit sequence as a sequence of 1's and 0's with no spaces between, e.g. 1010....

0001001010010110   **Answer:** 0001001010010110

EXPLANATION

ASCII representation: H=01001000, i=01101001;

b0 is transmitted first -> H=>00010010, i=>10010110;

message "Hi" = 0001001010010110

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1.3 QUIZ QUESTION 2 (1/1 point)

What is the decimal value of the bit sequence "1000"? Assume that the MSB is listed first.

Please key in the numerical value of your answer in the box provided below.

> 8

8

Answer: 8

EXPLANATION

The decimal value of the bit sequence **1000** is **8**. You can calculate this value as the binary weighted sum of powers of two:

$$1000 = 1 \cdot 2^3 + 0 \cdot 2^2 + 0 \cdot 2^1 + 0 \cdot 2^0 = 8$$

General equation of sum of powers of two:

$$x = \sum_{i=0}^{N-1} 2^i \cdot b_i$$

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