CS 51P – Fall 2023
Lecture 00

1. What is the (base-10) integer interpretation of these binary values?

```
0001

1010

0111

1111
```

2. What is the binary representation of each of these values?

```
2

12

13

14
```

Ch	Dec	Binary	Ch	Dec	Binary	Ch	Dec	Binary	Ch	Dec	Binary	Ch	Dec	Binary
!	33	00100001	1	49	00110001	A	65	01000001	Q	81	01010001	a	97	01100001
"	34	00100010	2	50	00110010	B	66	01000010	R	82	01010010	b	98	01100010
#	35	00100011	3	51	00110011	C	67	01000011	S	83	01010011	c	99	01100011
$	36	00100100	4	52	00110100	D	68	01000100	T	84	01010100	d	100	01100100
%	37	00100101	5	53	00110101	E	69	01000101	U	85	01010101	e	101	01100101
&	38	00100110	6	54	00110110	F	70	01000110	V	86	01010110	f	102	01100110
'	39	00100111	7	55	00110111	G	71	01000111	W	87	01010111	g	103	01100111
(	40	00101000	8	56	00111000	H	72	01001000	X	88	01011000	h	104	01101000
)	41	00101001	9	57	00111001	I	73	01001001	Y	89	01011001	i	105	01101001
*	42	00101010	:	58	00111010	J	74	01001010	Z	90	01011010	j	106	01101010
+	43	00101011	;	59	00111011	K	75	01001011	[	91	01011011	k	107	01101011
,	44	00101100	<	60	00111100	L	76	01001100	\	92	01011100	l	108	01101100
-	45	00101101	=	61	00111101	M	77	01001101	]	93	01011101	m	109	01101101
.	46	00101110	>	62	00111110	N	78	01001110	^	94	01011110	n	110	01101110
/	47	00101111	?	63	00111111	O	79	01001111	_	95	01011111	o	111	01101111
0	48	00110000	@	64	01000000	P	80	01010000	`	96	01100000	p	112	01110000

3. How would a computer represent each of these words in binary?

a

I

Hello

4. How would a computer represent each of the following?

13

str(13)

“Hi!”

int(“Hi!”)