

BN45

aWK,

\*@Q=

128 | 64 | 32 | 16 | 8 | 4 | 2 | 1

## HW #1

1. a) ~~20 32 85 89~~ 42

32 | 85 | 89 | 66

00100000 10100000 10100000 10100000  
hex hex hex hexb)  $20 \rightarrow 32 \rightarrow 00100000$  hexc)  $\text{int } *a = (\text{int } *)p; \text{ printf}(" \%x", *a);$ output: ~~42~~ 20585942d)  $\text{int } *a = (\text{int } *)p; \text{ printf}(" \%x", *(a+1));$ output: ~~69~~ 69207363e)  $\text{char } *b = (\text{char } *)p; \text{ printf}(" \%c", *b);$ output: ~~B~~f)  $\text{char } *b = (\text{char } *)p; \text{ printf}(" \%c", *(b+1));$ output: ~~Y~~g)  $\text{char } *b = (\text{char } *)p; \text{ printf}(" \%c", *(b-1));$ output: ~~i~~h)  $\text{char } *b = (\text{char } *)p; \text{ printf}(" \%s", b);$ 

output: BYU cs is cool!

i)  $\text{char } *b = (\text{char } *)p; \text{ printf}(" \%s", *(b+1));$ 

output: CS is cool!

j)  $\text{long } *b = (\text{long } *)p; \text{ printf}(" \%lx", *(b+1));$ output: ~~00216c6f6f632073~~

2

bits				location
31	51	Q	40	$a[2]$
20	45	k	57	$a[1]$
73	34	4	4e	$a[0]$

input: BN45aWK,\*@Q=

3 Rise + Shout + BYU! - backwards!  
52697365 5368617574 425955  
26 3 26 21input: ~~65736952~~  
+Shout +BYU!"65736952  
+Shout +B  
215559

"BYU cs is cool!"

00	21	6e	6f	0x77adfb3e
6f	63	20	73	"a
69	20	73	63	"6
20	55	59	42	"2

bits	(hex:char)	address
00:NULL	00:NULL	20
2a: <del>*</del>	5e: <del>~</del>	5f: <del>-</del> 3e: <del>^</del> 16
2a: <del>*</del>	28: <del>(</del>	20: <del>sp</del> 21: <del>!</del> 12
21: <del>!</del>	34: <del>4</del>	32: <del>2</del> 32: <del>2</del> 8
20: <del>sp</del>	73: <del>s</del>	63: <del>c</del> 20: <del>sp</del> 4
33: <del>3</del>	3c: <del>&lt;</del>	20: <del>sp</del> 49: <del>I</del> 0

line #1 line #2 line #3 line #4  
 %x %x %x %s  
 long int int char  
 hex hex hex string

INPUT: ~~207363203332049~~  
21343232  
2a282021  
~~^ ^ \*~~