

choose one: Received Received help from:
 (or more) no help Collaborated with: _____

Homework: /SI110/The Cyber Battlefield/Digital Data

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

- | | | |
|---|---|-----------|
| 1. What non-negative integer does bit pattern 01001011 represent? | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | 5/4/3/0 |
| 2. What 8-bit pattern represents the value 107 ? | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | 5/4/3/0 |
| 3. <u>Exactly</u> how many bits are in a 7 KB (kilobyte) file? | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | 5/4/3/0 |
| 4. How many bytes would be needed for an ASCII text file containing only these characters BEAT ARMY! | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | 5/4/3/0 |
| 5. What string is represented by this sequence of ASCII values:
67 97 116 | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | 5/4/3/0 |
| 6. File foo consists of the 3 bytes: 0 0 1 1 1 0 1 0 0 0 1 0 1 1 0 1 0 0 1 0 1 0 0 1 | | |
| a. What exactly is displayed if foo is opened in notepad? | | 10/8/5/0 |
| b. What exactly is displayed if the file is opened in Frhed (hex editor)? | | 10/8/5/0 |
| c. What would happen if you tried to open this with Windows Photo Viewer? | | 10/8/5/0 |
| 7. Consider the file: http://rona.cs.usna.edu/~si110/lec/l01/hw/tiger.zip | | |
| a. The file extension leads you to believe it is what type of file? | | 5/3/3/0 |
| b. What type of file is it, really? | | 5/3/3/0 |
| c. How did you determine your answer to b? | | 15/12/8/0 |

8. WEP is a common scheme for securing wireless routers. To connect to the router you have to enter a "key", where the key is really a number written in hex. Suppose your friend wrote down his router's WEP key for you, and there's a character in it that might be the number 0, or it might be the letter O.

a. Which is it?

5/3/3/0

b. Explain your answer:

15/12/8/0