

Data Representation Quiz

1. Convert to denary: 01001100
2. Convert to binary: 146
3. Convert to hex: 93
4. Convert to denary: F3
5. How many bytes in a
 - a. Kibi
 - b. Mibi
6. If A = 65, write your name in ASCII
7. Evaluate: $01001101_2 + 01110110_2$
8. Evaluate $01010011_2 - 01011111_2$
9. Convert to fixed point binary 13.625
10. Represent the following floating point number as denary: 0.1011001 0100
11. Length of sound clip = 10 seconds, bits per sample = 8 sample rate = 8000. What is the size of the file in kilobytes

12. Width of image = 12 pixels, height of image= 8 pixels, no of colours = 8. What is the size of the image in bytes:
13. List 3 pieces of metadata for an image
14. Explain majority voting.
15. Explain how sound is converted from analogue to digital.
16. Explain what MIDI is.
17. If the Caesar cypher key is B, decipher the following cyphertext: CBOBOBT
18. For even parity what bit would we add to 010001?
19. What are the advantages of vector graphics compared with bitmap graphics.
20. Why do we compress data?
21. Apply RLE to the following sequence 011000111100010
22. Why might RLE compression actually increase the size of a file.