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| **Skill 4.1 Exercise 1** |
| Consider the settings screen for a user at a website |
| Which of the settings can be stored in a single bit? |

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| **Skill 4.2 Exercise 1** |
| The table below illustrates the number of values that can be stored for a given number of bits. Complete the table, |
| |  |  | | --- | --- | | Bits | Values | | 1 | 2 | | 2 | 4 | | 3 | 8 | | 4 |  | | 5 |  | | 6 |  | | 7 |  | | 8 |  | |
| Propose a formula that could be used to determine the number of values that can be stored in a given number of bits. |
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| **Skill 4.3 Exercise 1** |
| If a single wire can represent 2 different values depending on whether it is on or off. How many wires are needed to represent (a) 4 values? (b) 5 values? (c) 10 values? (d) 28 values? (e) 128 values? |
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| **Skill 4.4 Exercise 1** |
| How many bytes long is the binary sequence below?  1011100111011011011010010011010101111111 |
| How many bits are in 8 bytes of information? |

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| **Skill 4.5 Exercise 1** |
| Consider the following bytes of data stored in .  (a) How many different values can be stored in each address?  (b) How many different values can be stored in all the addresses combined? |
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