

Name \_\_\_\_\_ Period \_\_\_\_\_

### Skill 0.1 Exercise 1


Consider the settings screen for a user at a website

User name

Birthdate

Primary Language

English 

☒ Sound effects

Which of the settings can be stored in a single bit?

Which of the settings can be stored in a single bit?

### Skill 0.2 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 0.3 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?

**Skill 0.4 Exercise 1**

How many bytes long is the binary sequence below?

1011100111011011011010010011010101111111

How many bits are in 8 bytes of information?

**Skill 0.5 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?

## Memory

Address	Data
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1	11110000
2	00001010
3	00100110
4	11000001