

Bit Wise Operations

A PowerPoint covering Bit Wise operations is included in the "Presentations" folder of this repository. Please review this material before attempting the questions at the link below.

Since computers do not store numbers in base 10, like we normally use in our day to day lives, we must familiarize ourselves with a mathematics in this new base, binary. The most important operators to understand are AND, OR, NOT, and XOR. Understanding these concepts will be crucial in understanding the labs following the introduction.

Once you have completed the review or are confident in your knowledge of bit wise operators, please follow the link below to test your understanding.

Sample Bit Wise Operators: <https://www.khanacademy.org/computing/computer-science/cryptography/ciphers/e/bitwise-operators>

Kahn Academy, and Code Academy, may prove to be useful tools to you if you feel as if you are lacking in coding knowledge. If you are struggling with concepts, the Arduino programming language is heavily based on C. Therefore, follow their guides for C to help catch you back up to speed.

Bit Shifting Activity

A PowerPoint covering Bit Shifting operations is also included in the "Presentations" folder of this repository. Please review this material before attempting the sample problems below.

Left Shift

00101011<< 3 : _____

11011011<< 4: _____

11011011<< 2: _____

01111111<< 5: _____

Right Shift

00101011>> 4: _____

11011011>> 3: _____

11011011>> 5: _____

01111111>> 3: _____