Lab 12

1. Write a function to sort an array by of integers by their absolute values. If two integers have the same absolute value, then the negative number comes before the positive number.

**Input**: 9, -1, 4, 8, -11, -5, 1

**Output**: -1, 1, 4, -5, 8, 9, -11

1. Write a function to sort an array containing only integers 0s,1s, and 2s **in linear time.** This is also called the Dutch national flag problem. Is it a stable sort?