Homework 2 of CSC 220 Algorithms, Fall 2020

given October 4, 2020, due October 25

In this your second project you write a function

```
int sort(int A[], int n)
```

that takes one array of length `n` and sorts it. However, `n` is of the order of ten millions, so you need to use radixsort to get the sorting done fast. Fast here means in the range of seconds.

The numbers are all less than 2^{32}; you need to do two rounds of radixsort for the lower and upper 16 bit of the number. For an integer `b` you can find the lower 16 bit by `b & 0xFFFF` and the upper 16 bit by `(b>>16) & 0xFFFF`. Read up about bit operations and hexadecimal number in C and C++.

Include in your homework your name, the date, and the class, in a comment line. Submit your homework, with the homework number and the class in the subject line, by e-mail to `phjmbrass@gmail.com`. Do not share code with other students.