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// ***
// *** You must modify this file
// ***

#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <stdbool.h>
#include "hw07.h"

#ifdef TEST_MAIN
int main(int argc, char * * argv)
{
    // argv[1]: name of input file
    // argv[2]: name of output file

    if (argc != 3)
    {
        return EXIT_FAILURE;
    }
    // if argc is not 3, return EXIT_FAILURE

    // count the number of integers in the file
    int numElem = 0;
    numElem = countInt(argv[1]);

    if (numElem == -1) // fopen fails
    {
        return EXIT_FAILURE;
    }

    // allocate memory for the integers in the file
    // 1. create a pointer variable
    // 2. allocate memory
    // 3. check whether allocation succeed
    //    if allocation fails, return EXIT_FAILURE

    int * intArr = malloc(sizeof(* intArr) * numElem); //allocates
memory for array

    if (intArr == NULL)
    {
        free(intArr);
        return EXIT_FAILURE;
    }

    bool rtv = readInt(argv[1], intArr, numElem);

    if (rtv == false) // read fail

```

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    {
        free(intArr);
        return EXIT_FAILURE;
        //will probably want a free if I have a return
    }

    // call qsort using the comparison function you write
    qsort(intArr, numElem, sizeof(* intArr), &compareInt);

    // write the sorted array to a file whose name is argv[2]
    //

    rtv = writeInt(argv[2], intArr, numElem);
    if (rtv == false) // read fail
    {
        // release memory
        free(intArr);
        return EXIT_FAILURE;
    }

    // everything is ok, release memory, return EXIT_SUCCESS

    free(intArr);
    return EXIT_SUCCESS;
}
#endif

```