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\* find.c

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\* Computer Science 50

\* Problem Set 3

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\* Prompts user for as many as MAX values until EOF is reached,

\* then proceeds to search that "haystack" of values for given needle.

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\* Usage: ./find needle

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\* where needle is the value to find in a haystack of values

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#include <cs50.h>

#include <stdio.h>

#include <stdlib.h>

#include "helpers.h"

// maximum amount of hay

const int MAX = 65536;

int main(int argc, string argv[])

{

// ensure proper usage

if (argc != 2)

{

printf("Usage: ./find needle\n");

return -1;

}

// remember needle

int needle = atoi(argv[1]);

// fill haystack

int size;

int haystack[MAX];

for (size = 0; size < MAX; size++)

{

// wait for hay until EOF

printf("\nhaystack[%i] = ", size);

int straw = get\_int();

if (straw == INT\_MAX)

{

break;

}

// add hay to stack

haystack[size] = straw;

}

printf("\n");

// sort the haystack

sort(haystack, size);

// try to find needle in haystack

if (search(needle, haystack, size))

{

printf("\nFound needle in haystack!\n\n");

return 0;

}

else

{

printf("\nDidn't find needle in haystack.\n\n");

return 1;

}

}