```c
/*  HOMEWORK 2.1
    multiples.c:
    Prompts the user for a POSITIVE INTEGER limit and prints all
    multiples of 5 that DO NOT EXCEED the entered limit.
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#define _CRT_SECURE_NO_WARNINGS // allow scanf on Windows
#include <stdio.h>
#include <stdlib.h>

const int MULTIPLIER = 5;   // constant multiplier (5 given in assignment spec)

int getInteger(const char *prompt);

int main(int argc, char** argv)
{
    int limit = 0;      // user-specified positive integer to count up to
    int i = 0;          // counter
    int product = 0;    // product = counter * MULTIPLIER

    /*  Input loop: keep prompting user for limit until
        a reasonable value is entered.  */
    do {
        limit = getInteger("Enter an integer greater than zero: ");
    } while (limit <= 0);

    // Tell user what we're doing
    printf("\nCounting to %d by multiples of %d:\n", limit, MULTIPLIER);

    /*  Begin output loop:
        As long as i * MULTIPLIER <= limit ... */
    while (product <= limit) {
        printf("%5d * %1d = %7d\n", i, MULTIPLIER, product);  // pretty print
        i++;    // increment counter
        product = i * MULTIPLIER;   // calculate product
    }   // if while condition not met, stop looping

    if (limit % MULTIPLIER > 0) // check for remainder
        // explain remainder to user
        printf("I cannot reach %d because it is not a multiple of %d.\n", limit,
MULTIPLIER);

    return 0;   // We shouldn't have an error
}

/*  getInteger
    argument:   prompt (const char *)
                string to prompt the user
    return:     user input converted to integer */
```

```c
int getInteger(const char *prompt)
{
    int myInt = 0;  // int to return

    printf("%s", prompt);   // Display the prompt
    scanf("%d", &myInt);    // request input

    return myInt;           // return integer
}
```