```c
/**
 * adder.c
 *
 * David J. Malan
 * malan@harvard.edu
 *
 * Adds two numbers.
 *
 * Demonstrates use of CS50's library.
 */

#include <cs50.h>
#include <stdio.h>

int main(void)
{
    // ask user for input
    printf("Give me an integer: ");
    int x = GetInt();
    printf("Give me another integer: ");
    int y = GetInt();

    // do the math
    printf("The sum of %i and %i is %i!\n", x, y, x + y);
}
```

```c
/**
 * conditions-0.c
 *
 * David J. Malan
 * malan@harvard.edu
 *
 * Tells user if his or her input is positive or negative (somewhat
 * inaccurately).
 *
 * Demonstrates use of if-else construct.
 */

#include <cs50.h>
#include <stdio.h>

int main(void)
{
    // ask user for an integer
    printf("I'd like an integer please: ");
    int n = GetInt();

    // analyze user's input (somewhat inaccurately)
    if (n > 0)
    {
        printf("You picked a positive number!\n");
    }
    else
    {
        printf("You picked a negative number!\n");
    }
}
```

```c
/**
 * conditions-1.c
 *
 * David J. Malan
 * malan@harvard.edu
 *
 * Tells user if his or her input is positive, zero, or negative.
 *
 * Demonstrates use of if-else if-else construct.
 */

#include <cs50.h>
#include <stdio.h>

int main(void)
{
    // ask user for an integer
    printf("I'd like an integer please: ");
    int n = GetInt();

    // analyze user's input
    if (n > 0)
    {
        printf("You picked a positive number!\n");
    }
    else if (n == 0)
    {
        printf("You picked zero!\n");
    }
    else
    {
        printf("You picked a negative number!\n");
    }
}
```

```c
/**
 * f2c.c
 *
 * David J. Malan
 * malan@harvard.edu
 *
 * Converts Fahrenheit to Celsius.
 *
 * Demonstrates arithmetic.
 */

#include <cs50.h>
#include <stdio.h>

int main(void)
{
    // ask user user for temperature in Fahrenheit
    printf("Temperature in F: ");
    float f = GetFloat();

    // convert F to C
    float c = 5.0 / 9.0 * (f - 32.0);

    // display result to one decimal place
    printf("%.1f\n", c);
}
```

```c
/**
 * hello-0.c
 *
 * David J. Malan
 * malan@harvard.edu
 *
 * Says hello to the world.
 *
 * Demonstrates use of printf.
 */

#include <stdio.h>

int main(void)
{
    printf("hello, world\n");
}
```

```c
/**
 * hello-1.c
 *
 * David J. Malan
 * malan@harvard.edu
 *
 * Says hello to just David.
 *
 * Demonstrates use of CS50's library.
 */

#include <cs50.h>
#include <stdio.h>

int main(void)
{
    string name = "David";
    printf("hello, %s\n", name);
}
```

```c
/**
 * hello-2.c
 *
 * David J. Malan
 * malan@harvard.edu
 *
 * Says hello to whomever.
 *
 * Demonstrates use of CS50's library and standard input.
 */

#include <cs50.h>
#include <stdio.h>

int main(void)
{
    printf("State your name: ");
    string name = GetString();
    printf("hello, %s\n", name);
}
```

```c
/**
 * nonswitch.c
 *
 * David J. Malan
 * malan@harvard.edu
 *
 * Assesses the size of user's input.
 *
 * Demonstrates use of Boolean ANDing.
 */

#include <cs50.h>
#include <stdio.h>

int main(void)
{
    // ask user for an integer
    printf("Give me an integer between 1 and 10: ");
    int n = GetInt();

    // judge user's input
    if (n >= 1 && n <= 3)
    {
        printf("You picked a small number.\n");
    }
    else if (n >= 4 && n <= 6)
    {
        printf("You picked a medium number.\n");
    }
    else if (n >= 7 && n <= 10)
    {
        printf("You picked a big number.\n");
    }
    else
    {
        printf("You picked an invalid number.\n");
    }
}
```

```c
/**
 * switch.c
 *
 * David J. Malan
 * malan@harvard.edu
 *
 * Assesses the size of user's input.
 *
 * Demonstrates use of a switch.
 */

#include <cs50.h>
#include <stdio.h>

int main(void)
{
    // ask user for an integer
    printf("Give me an integer between 1 and 10: ");
    int n = GetInt();

    // judge user's input
    switch (n)
    {
        case 1:
        case 2:
        case 3:
            printf("You picked a small number.\n");
            break;

        case 4:
        case 5:
        case 6:
            printf("You picked a medium number.\n");
            break;

        case 7:
        case 8:
        case 9:
        case 10:
            printf("You picked a big number.\n");
            break;

        default:
           printf("You picked an invalid number.\n");
           break;
    }
}
```