

```
1. /**
2.  * adder.c
3.  *
4.  * David J. Malan
5.  * malan@harvard.edu
6.  *
7.  * Adds two numbers.
8.  *
9.  * Demonstrates use of CS50's library.
10. */
11.
12. #include <cs50.h>
13. #include <stdio.h>
14.
15. int main(void)
16. {
17.     // ask user for input
18.     printf("Give me an integer: ");
19.     int x = GetInt();
20.     printf("Give me another integer: ");
21.     int y = GetInt();
22.
23.     // do the math
24.     printf("The sum of %i and %i is %i!\n", x, y, x + y);
25. }
```

```
1. /**
2.  * conditions-0.c
3.  *
4.  * David J. Malan
5.  * malan@harvard.edu
6.  *
7.  * Tells user if his or her input is positive or negative (somewhat
8.  * inaccurately).
9.  *
10. * Demonstrates use of if-else construct.
11. */
12.
13. #include <cs50.h>
14. #include <stdio.h>
15.
16. int main(void)
17. {
18.     // ask user for an integer
19.     printf("I'd like an integer please: ");
20.     int n = GetInt();
21.
22.     // analyze user's input (somewhat inaccurately)
23.     if (n > 0)
24.     {
25.         printf("You picked a positive number!\n");
26.     }
27.     else
28.     {
29.         printf("You picked a negative number!\n");
30.     }
31. }
```

```
1. /**
2.  * conditions-1.c
3.  *
4.  * David J. Malan
5.  * malan@harvard.edu
6.  *
7.  * Tells user if his or her input is positive, zero, or negative.
8.  *
9.  * Demonstrates use of if-else if-else construct.
10. */
11.
12. #include <cs50.h>
13. #include <stdio.h>
14.
15. int main(void)
16. {
17.     // ask user for an integer
18.     printf("I'd like an integer please: ");
19.     int n = GetInt();
20.
21.     // analyze user's input
22.     if (n > 0)
23.     {
24.         printf("You picked a positive number!\n");
25.     }
26.     else if (n == 0)
27.     {
28.         printf("You picked zero!\n");
29.     }
30.     else
31.     {
32.         printf("You picked a negative number!\n");
33.     }
34. }
```

```
1. /**
2.  * f2c.c
3.  *
4.  * David J. Malan
5.  * malan@harvard.edu
6.  *
7.  * Converts Fahrenheit to Celsius.
8.  *
9.  * Demonstrates arithmetic.
10. */
11.
12. #include <cs50.h>
13. #include <stdio.h>
14.
15. int main(void)
16. {
17.     // ask user user for temperature in Fahrenheit
18.     printf("Temperature in F: ");
19.     float f = GetFloat();
20.
21.     // convert F to C
22.     float c = 5.0 / 9.0 * (f - 32.0);
23.
24.     // display result to one decimal place
25.     printf("%.1f\n", c);
26. }
```

```
1. /**
2.  * hello-0.c
3.  *
4.  * David J. Malan
5.  * malan@harvard.edu
6.  *
7.  * Says hello to the world.
8.  *
9.  * Demonstrates use of printf.
10. */
11.
12. #include <stdio.h>
13.
14. int main(void)
15. {
16.     printf("hello, world\n");
17. }
```

```
1. /**
2.  * hello-1.c
3.  *
4.  * David J. Malan
5.  * malan@harvard.edu
6.  *
7.  * Says hello to just David.
8.  *
9.  * Demonstrates use of CS50's library.
10. */
11.
12. #include <cs50.h>
13. #include <stdio.h>
14.
15. int main(void)
16. {
17.     string name = "David";
18.     printf("hello, %s\n", name);
19. }
```

```
1. /**
2.  * hello-2.c
3.  *
4.  * David J. Malan
5.  * malan@harvard.edu
6.  *
7.  * Says hello to whomever.
8.  *
9.  * Demonstrates use of CS50's library and standard input.
10. */
11.
12. #include <cs50.h>
13. #include <stdio.h>
14.
15. int main(void)
16. {
17.     printf("State your name: ");
18.     string name = GetString();
19.     printf("hello, %s\n", name);
20. }
```

```
1. /**
2.  * nonswitch.c
3.  *
4.  * David J. Malan
5.  * malan@harvard.edu
6.  *
7.  * Assesses the size of user's input.
8.  *
9.  * Demonstrates use of Boolean ANDing.
10. */
11.
12. #include <cs50.h>
13. #include <stdio.h>
14.
15. int main(void)
16. {
17.     // ask user for an integer
18.     printf("Give me an integer between 1 and 10: ");
19.     int n = GetInt();
20.
21.     // judge user's input
22.     if (n >= 1 && n <= 3)
23.     {
24.         printf("You picked a small number.\n");
25.     }
26.     else if (n >= 4 && n <= 6)
27.     {
28.         printf("You picked a medium number.\n");
29.     }
30.     else if (n >= 7 && n <= 10)
31.     {
32.         printf("You picked a big number.\n");
33.     }
34.     else
35.     {
36.         printf("You picked an invalid number.\n");
37.     }
38. }
```



```
1. /**
2.  * switch.c
3.  *
4.  * David J. Malan
5.  * malan@harvard.edu
6.  *
7.  * Assesses the size of user's input.
8.  *
9.  * Demonstrates use of a switch.
10. */
11.
12. #include <cs50.h>
13. #include <stdio.h>
14.
15. int main(void)
16. {
17.     // ask user for an integer
18.     printf("Give me an integer between 1 and 10: ");
19.     int n = GetInt();
20.
21.     // judge user's input
22.     switch (n)
23.     {
24.         case 1:
25.         case 2:
26.         case 3:
27.             printf("You picked a small number.\n");
28.             break;
29.
30.         case 4:
31.         case 5:
32.         case 6:
33.             printf("You picked a medium number.\n");
34.             break;
35.
36.         case 7:
37.         case 8:
38.         case 9:
39.         case 10:
40.             printf("You picked a big number.\n");
41.             break;
42.
43.         default:
44.             printf("You picked an invalid number.\n");
45.             break;
46.     }
47. }
```