1. Using integer variables

- Create a program called **bday.cpp** using pico.

  ```
  student$ pico bday.cpp
  ```

- Begin by copying your "hello world" code into the **bday.cpp** file. Compile and run it, to make sure you are starting with working code:

  ```
  student$ g++ bday.cpp -o bday
  student$ ./bday
  ```

- Now edit the code. Declare two integer variables inside the `main()` function of your program:

  ```
  int day;
  int month;
  ```

- After you declare them, set the value of these variables to the day and month in which you were born:

  ```
  day = 1;
  month = 1;
  ```

- Then change the output of your program. Instead of saying "hello world", say "happy birthday on 1/1" (or whatever your birthday is).

  ```
  cout << "happy birthday on " << day << "/" << month << "\n";
  ```

- Compile and run it to make sure it works.

2. Using character variables

- Create a new program called **initials.cpp** by copying your **bday.cpp** code into the new file. Then edit the new file using pico.

  ```
  student$ cp bday.cpp initials.cpp
  student$ pico initials.cpp
  ```

- Declare three character variables inside the `main()` function of your program:

  ```
  char first;
  char middle;
  char last;
  ```

- After you declare them, set the value of these variables to your initials;

  ```
  first = 'E';
  middle = 'I';
  last = 'S';
  ```

- Then change the output of your program. Say something creative using your initials.

Here is an uncreative example:

```
cout << "my initials are " << first << middle << last << "\n";
```

- Compile and run it to make sure it works.

```
student$ g++ initials.cpp -o initials
student$ ./initials
```

3. Adding it all up

- Create a new program called **initnum.cpp** by copying your **initials.cpp** code into the new file. Then edit the new file using pico.

```
student$ cp initials.cpp initnum.cpp
student$ pico initnum.cpp
```

- Declare three integer variables after the three character variables that are already there from the **initials** program.
- Assign values to each of the integer variables by converting a character variable, like this:

```
char first;
int first_num;
first = 'E';
first_num = (int)first;
```

- Now declare another integer variable called **sum**. Set "sum" equal to the total of the three integer values. Output the value of sum.
- Compile and run it to make sure it works.

```
student$ g++ initnum.cpp -o initnum
student$ ./initnum
```