Programming I Assignment 2

1. Write an application that allows the user to enter a Fahrenheit temperature and displays the Celsius equivalent or enter a Celsius temperature and displays the Fahrenheit equivalent. The application should include a Celsius method which returns the Celsius equivalent of a Fahrenheit temperature using the following calculation;

   ```
   celsius = 5.0/9.0 * (Fahrenheit - 32);
   ```

   The application should also include a Fahrenheit method, which returns the Fahrenheit equivalent of a Celsius temperature using the following calculation;

   ```
   fahrenheit = 9.0/5.0 * celsius + 32;
   ```

2. Given the Person class outlined below; you are required to write a tester class which creates an array large enough to hold two person objects. Populate the array and using a for loop, display it's contents. Following this, change just the age of the Person objects and re-display the contents of the array.

```
class Person {

        // Data Members
        private int age;     // The age of this person
        private String name; // The name of this person
        private char gender; // The gender of this person

        // Default no argument constructor
        public Person() { this("Unassigned", 0, 'U'); // invokes overloaded constructor }

        // Overloaded Constructor
        public Person(String personName, int personAge, char personGender) {
                name = personName;
                age = personAge;
                gender = personGender;
        }

        // Returns the age of this person.
        public int getAge( ) { return age; }

        // Returns the gender of this person.
        public char getGender( ) { return gender; }

        // Returns the name of this person.
        public String getName( ) { return name; }

        // Sets the age of this person.
        public void setAge( int personAge ) { age = personAge; }

        // Sets the gender of this person.
        public void setGender( char personGender ) { gender = personGender; }

        // Sets the name of this person.
        public void setName( String personName ) { name = personName; }

        @Override
        public String toString() { return getName() + " " + getAge() + " " + getGender(); }

} // end class
```