

```

USCensus()
{

    double population = 307357870;
    double year = 31536000; // amount of seconds in a year

    double birthsPerYear = year / 7;
    double deathsPerYear = year / 13;
    double immigrantsPerYear = year / 35;

    double newPopulation = ((population - deathsPerYear)+ (birthsPerYear +
immigrantsPerYear);

    output("The population in one year will be " + newPopulation)

} // end problem one

Time()
{
    int currentTime ;
    int minutes;
    int hours;
    int seconds;
    int rem;

    currentTime = input("Enter time in seconds between 0 and 86400");

    hours = currentTime/3600;
    rem = currentTime%3600;

    if (rem >= 60)
        minutes = rem/60;
        seconds = rem%60;
    else
        seconds = rem;

    output("The time is " + hours + "hours, " + minutes + "minutes, and " + seconds +
"seconds!");

}

CelsiusConversion()
{

```

```

double degreesF = input("Enter a temperature in Farenheit: ");

double degreesC;
degreesC = (degreesF - 32) * (5/9);

output("The temperature in celsius is " + degreesC + " degrees!");

}

ValidNumber()
{
    int number = input("Enter a number between 1 and 10: ");

    while (number < 1 OR number > )
    {
        number = input("INVALID! Enter a number between 1 and 10");
    }

    output("Your number is " + number);
}

MPG()
{
    int mpg = input("Enter your the miles per gallon of your car: ");

    if (mpg >= 30)
        output("Hey nice job!")

    elseif (mpg < 30 && mpg >= 15)
        output("Decent, could be better")

    elseif (mpg < 15)
        output("That's horrible!")

}

AdventureGame()
{
    int input;

    while (input != 3)
    {

```

```
        input = input("Adventure! Choose an option: \n1. Fight the Dragon \n2. Save the Princess \n3. Go Home");
```

```
        if (input == 1)
            output("You win!");
```

```
        elseif (input == 2)
            output("You saved her!");
```

```
        elseif (input == 3)
            output("You lose..");
```

```
    }
```

```
    output("Game Over");
```

```
}
```

```
TreasureHunt()
```

```
{
```

```
    posX = 0;
```

```
    posY = 0;
```

```
    string currentTile;
```

```
    while (currentTile != "yellow")
```

```
    {
```

```
        currentTile = getTileColor(posX, posY);
```

```
        if (currentTile == "white")
```

```
            posY += 1;
```

```
        elseif (currentTile == "blue")
```

```
            posX -= 1;
```

```
        elseif (currentTile == "green")
```

```
            posX += 1;
```

```
        elseif (currentTile == "black")
```

```
            posY -= 2;
```

```
        elseif (currentTile == "yellow")
```

```
            output("You Win!");
```

```
    }
```

```
output("Game Over");
```

```
}
```