

Week 3 homework

Answer each of the following questions. Make sure to include time and date code (see Illustration 2 arrows) in your programs so it can be seen when reviewed.

1. Which operator do you use to read into a variable?
2. If you want the user to input an integer value into your program for a variable named number, what are two lines of code you could write to ask the user to do it and to input the value into your program?
3. What terminates input into an integer?
4. What terminates input into a string?
5. What is an object?
6. What is a variable?
7. What is an initialization and how does it differ from an assignment?
8. Write a console program in C++ that converts from miles to kilometers. Your program should have a reasonable prompt for the user to enter a number of miles and print result. Illustration 2 You have to find the conversion factor. **Include a listing of the code and a screen shot of the console with the program results.**

9. Write a similar program that **calls a function** to convert miles to kilometers. Include a listing of the code and a screen shot of the console with the program results.
10. Write a similar program that **calls a function to change a variable value** from miles to kilometers.. Include a listing of the code and a screen shot of the console with the program results.

```
HW3Cpp
Enter Mileage: 174
mileage :174 becomes 280,025 kilometers
Today is: Sun May 7 13:05:34 2017

Process returned 0 (0x0) execution time : 9.955 s
Press ENTER to continue.
```

Illustration 1: Question 8 Output

Make sure your listings include a printout of Date and Time ... include the following lines of code in your solutions:

```
1  #include <iostream>
2  #include <ctime>
3
4  #define Conversion ??????????
5
6  using namespace std;
7
8  int main()
9  {
10     time_t t = time(NULL); // get time and date
11     double Kilometers, Miles;
12
13     cout << "Enter Mileage: ";
14     cin >> Miles;
15     Kilometers = Miles*Conversion;
16     cout << "mileage :" << Miles << " becomes " << Kilometers << " kilometers" << endl;
17     cout << "Today is: " << ctime(&t) << endl;
18
19     return 0;
20 }
```

Illustration 2: Question 8 code