

Name: _____ Tutorial Section: 02 03 04 05 06 09

Important Note: Please write your student number on the back of this page.

APS 105
Fall 2010

QUIZ # 1
SECTION: 2-3PM

Computer Fundamentals
Tuesday, September 28

All quizzes, tests, and exams in this course are **closed book** with **no calculators**.

1. Consider the following piece of C code:

2
marks

```
double i = 3.1;
int j = 2;
int k = 4;
k += k/j + i;
i++;
j = j % 2;
```

In the boxes below, write down the **final** value of *i*, *j* and *k* after the last statement is executed.

i : 4.1

j : 0

k : 9

2. Write a single C statement that declares an integer variable *i* and initializes *i* to an *even* random number between 100 and 200 inclusive. You may assume that the `stdlib.h` library has already been included. 2 marks

```
int i = (rand() % 51)*2 + 100;
```

3. Write a *complete* C program that prompts the user for a double value corresponding to a distance in miles, reads the value into a variable of type `double` named *miles*, converts the distance in miles into a distance in kilometres, and then prints the distance in kilometres to four decimal places. Your program should assume that one mile is equivalent to 1.61 kilometres. Input and output must be done with `scanf` and `printf`. A sample run of the program is below. Your output must conform to this format. 6 marks

```
Please input a number in miles: 10.0
The distance in kilometres is: 16.1000.
```

```
#include <stdio.h>
```

```
int main(void)
```

```
{
    double miles;
    double km;

    printf("Please input a number in miles: ");
    scanf("%lf", &miles);
    km = miles * 1.61;
    printf("The distance in kilometres is: %.4f.\n", km);

    return 0;
}
```

Student No.: _____

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