

Physics 40: Quiz Two

Thursday, April 18, 2019

[1.] You try compiling the code below,

```
#include <stdio.h>
#include <math.h>
int main()
{
    double x,y,z;
    printf("\nEnter x\n");
    scanf("%lf",&x);
    printf("\nEnter y\n");
    scanf("%lf",&y);
    z=x+y
    printf("\nx+y=%12.8lf",z);
    printf("\nx+y=%lf\n",z);
    return 0;
}
```

but you get the error

```
temp.c:12:5: error: expected ; before printf
    printf("\nx+y=%12.8lf",z);
```

What is the error in your code? Fix it in the code above.

[2.] You try compiling the code below,

```
#include <stdio.h>
#include <math.h>
int main(void)
{
    int jmin,jmax,j;
    printf("Enter jmin,jmax ");
    scanf("%i",&jmin,&jmax);
    for(j=jmin;j<jmax+1;j=j+1)
    {
        printf("\n%i",j);
    }
    printf("\n");
    return 0;
}
```

but you get the error

```
temp2.c:7:10: warning: too many arguments for format [-Wformat-extra-args]
    scanf("%i",&jmin,&jmax);
```

a) What is the error in your code? Fix it in the code above.

b) After you fix it, what will your program do if you supply the inputs jmin=8 and jmax=19?

Turn Sheet Over For Problem 3!!!!

[3.] You are running a molecular dynamics code for an oscillator. The spring constant $k = 100$ N/m and the mass $m = 0.01$ kg. What time step dt should you use? Why?