PIC 10A 1C: Week 3b Problems. Thursday, 1/21/2016. TA: Eric Kim

1. What does C++ print?

Write out what the code snippets would output. If an error occurs, describe the error. The first has been done for you.
Assume that we have included the <iostream>, <cmath>, <string> libraries, and that we are using the standard namespace.

int x = 42; cout << x + 1;	**43**
int i = 24; int j = 2; i *= j; cout << i << " " << j;	
int myage = 42; int myage += 1; cout << "birthday: " << myage;	
int a = 13 % 12; cout << a << " " << a % 1;	

2. cin city

For each of the code and user-input, write the output. If cin enters a failure state, or the program hangs/pauses, please explain why. The first has been done for you.

Code	**User Input**
int x; cin >> x; cout << "x is: " << x;	42<ENTER>

Output:

x is: 42

2.a

Code	**User Input**
int x, y; cin >> y >> x; cout << x << " " << y;	2 4<ENTER>

Output:

2.b

Code	User Input
int x = 0, y = 1; cin >> x >> y; cout << x << " " << y;	24<ENTER>

Output:

2.c

Code	User Input
int x = 0, y = 1; cin >> x >> y; cout << x << " " << y;	<ENTER>

Output:

2.d

Code	User Input
int a = 1; double b = 0.1; cin >> b >> b >> a; cout << a << " " << b;	.1.23 4<ENTER>

Output:

2.e

Code	User Input
double d1 = 0; string s1; cin >> d1 >> s1; cout << d1 << " " << s1;	0.12meow<ENTER>

Output:

2.f

Code	User Input
double d1 = 3; string s1; cin >> s1 >> d1; cout << d1 << " " << s1;	0.12meow0.50<ENTER>

Output:

2.g

Code	User Input

string s1; int i1 = 1; double d1;
cin >> s1 >> s1 >> i1;
cin.clear();
cin >> d1 >> s1;
cout << s1 << " " << i1 << " " << d1;
	this is .50 cent<ENTER>

Output:

3. Code Review

Louis Reasoner is at it again, getting better every night at programming. Can you spot any mistakes in his latest program?

```
using namespace std;
int main (
  string myname;
  cout << "Please enter your name: ";
  cin << myname;
  cout << "How old are you?" << \n;
  cin >> myage;
  cout >> "In 10 years, myname will be myage+10 years old!" << endl;
  string myname = "Louis";
  cout >> "Programmed by: " << myname;
  return 0;
)
```

4. Reverse Engineer Causes Mayhem At Local Factory

Circle the inputs to cin that will produce the desired output. Multiple answers may be correct.

4.a

Code	**Desired Output**

`string a; int b; int c;`
`cin >> a >> b >> c;`
`cout << b << " " << c;`
	`42 2`

cin Input (Circle correct choices)

(A) hi 422<ENTER>
(B) hi42 2<ENTER>
(C) hi 42 2<ENTER>
(D) hi422<ENTER>

4.b

`string s1; double d1;`
`cin >> s1 >> s1 >> d1 >> d1;`
`cout << s1 << " " << d1;`
	`alpha 0.5`

cin Input:

(A) alpha 0.5<ENTER>
(B) alpha alpha 0.5 0.5<ENTER>
(C) alpha0.5 alpha 0.5 0.5<ENTER>
(D) alpha 0.5 alpha 0.5<ENTER>

4.c

`double d1 = 1.1; int i1 = 2; string s1;`
`cin >> d1 >> i1 >> i1;`
`cin >> s1;`
`cin.clear();`
`cin >> d1;`
`cin >> s1;`
`cout << d1 << " " << s1 << " " << i1;`
	`0.3 .4.5 2`

cin Input:

(A) 0.12.3.4.5<ENTER>
(B) 0.3 2 2 a 0.3 .4.5<ENTER>
(C) .3.3 .4.5<ENTER>
(D) 12.3.3 .4.5<ENTER>