

Booleans and Conditionals

1. For the following line of code, (a) identify an error that may occur and (b) fix the line so it accomplishes the same goal but without the error.

```
return (x % y < 10) and (y >= 10)
```

2. Write what the following code would print.

Note: end=" " keeps the next statement on the same line instead of being on different lines.

```
def f(x):  
    print("A", end="")  
    if (x == 0):  
        print("B",end="")  
        print("C",end="")  
    elif (x == 1):  
        print("D",end="")  
    else:  
        print("E",end="")  
        if (x == 2):  
            print("F",end="")  
        else:  
            print("G",end="")  
    print("H")
```

```
f(0)
```

```
f(1)
```

```
f(2)
```

```
f(3)
```

3. We have written a function that we want to print out as many facts about a number as possible, but we're still a little bit confused about the difference between if statements and elif statements. Which version of the function will tell us the most facts about a number and why?

```
def facts1(n):  
    if(n % 2 == 0):  
        print("The number is even!")  
    elif(n % 3 == 0):  
        print("The number is divisible by 3!")  
    elif(n > 100):  
        print("The number is big!")  
    elif(n > 1000):  
        print("The number is super big!")
```

```
def facts2(n):  
    if(n % 2 == 0):  
        print("The number is even!")  
    if(n % 3 == 0):  
        print("The number is divisible by 3!")  
    if(n > 100):  
        print("The number is big!")  
    if(n > 1000):  
        print("The number is super big!")
```

4. Write the corresponding code that follows the conditional flow chart:

