

Python Beginners Week 4 HW

Question 1

In your own words explain what if statements are and what they allow the computer to do. Please write your answer using comments in Processing.

Question 2

For this question you will need to write actual code. Write code which prints "You are old" if age is greater than 65, prints "You are an adult" if age is greater than or equal to 18 and prints "You are young" if age is less than 18. Age will be a variable that holds on to an integer. You may set the age variable to whatever you like. For example, your code will start with something like this...

```
# My Python Code
age = 12
blah blah...
blah blah...
...
...
```

Question 3

Below are two variables that I want you to copy and paste. I want you to write an if statement that prints "You are a triangle" if sides is equal to 3, prints "You are a rectangle" if sides is equal to 4 and "You are a polygon" if the number of sides is greater than 4. After the if statement, we need to print the string stored inside the special_message variable if "You are a triangle" is was printed.

```
# My Python Code Variables
sides = 3
special_message = "I am a special shape"
```

Question 4

What is wrong with the following code and how can you fix it?

```
grade = 95
if grade >= 85:
    print("You have an A")
if grade >= :70
    print("You have a B")
if grade >= 60:
    print("You have a C")
```

Question 5

In Python we can also check if a certain letter or substring is present in a String. For example, the code below will print cool since Jo is part of Jonny.

```
# My Code
name = "Jonny"
if "Jo" in name:
    print("Cool")
```

I want you to use the provided variable below called favourite word. If the word contains the letter "A" then print "My favourite word has an A in it" then if it also contains the letter "M" we should also print "My favourite word also has a M in it". Note that we only print the second part if the first part is true.

```
# My Python Code
favourite_word = "Amazing"
<Your code will go below here>
```