Name Jack Sweeney 06.01Testing

This assignment has three parts.

Part One: Design the program

Insert your pseudocode here:

-Input

-Ask if user if they want to do nautical miles and miles or inches and millimeters

-If they say miles & nautical ask to nautical or to mile

-If they say inches & millimeters ask to inches or to millimeters

-Background

-Change witch calculation is ran by the user input

- define functions converting inches to millimeters, millimeters to inches, nautical to mile, mile to nautical.

Output

- Say what the users original measurement and what its equivalent form is in the other standard. Ex. 33 Inches is equal to 838.2 Millimeters

Part Two: Code the program

Insert a copy of your code from IDLE here:

```
#Jack Sweeney 9/12/18
def convertToNauticalM(miles):
    nautical = miles * 0.868976
    return nautical
```

```
def convertToMiles(nautical):
	miles = nautical * 1.15078
	return miles
def convertToMm(inch):
	mM = inch * 25.4
	return mM

def convertToInch(mM):
	inch = mM * 0.0393701
	return inch

def main():
	inch = 0
	mM = 0
	nautical = 0
	miles = 0
	choiceMilesOrInch = input("Do you want convert between Inches and Milimeters(1) or
between Miles and Nautical Miles(2)")

	if( choiceMilesOrInch == "1" ):
		choiceMmOrInch = input("Do you Want to convert to Milimemeters(M) or To
Inches(I)")
		#convert Inches to mm
		if( choiceMmOrInch == "m" or choiceMmOrInch == "M" ):
			inch = float(input("Enter Inches to be converted to milimeters."))
			print str(inch) + " inches is equal to " + str( convertToMm(inch) ) + "
milimeters."
			#Convert Mm to inches
		elif( choiceMmOrInch == "i" or choiceMmOrInch == "I" ):
			mM = float(input("Enter milimeters to be converted to inches."))
			print str(mM) + " milimeters is equal to " + str( convertToInch(mM) ) + "
inches."
	elif( choiceMilesOrInch == "2" ):
		choiceNOrM = input("Do you Want to convert to Nautical Miles(N) or To
Miles(M)")
```

```
            #Convert To Miles to Nautical
            if( choiceNOrM == "n" or choiceNOrM == "N" ):
                  miles = float(input("Enter miles to be converted to nautical miles."))
                  print str(miles) + " miles is equal to " + str( convertToNauticalM(miles) )
+ " nautical miles."

            #Convert from Nautical to Miles
            elif( choiceNOrM == "m" or choiceNOrM == "M" ):
                  nautical = float(input("Enter nautical miles to be converted to miles."))
                  print str(nautical) + " nautical miles is equal to " + str(
convertToMiles(nautical) ) + " miles."



main()
```

Part Three: Post Mortem Review

Complete the Post Mortem Review (PMR). Write a thoughtful two to three sentence response to each of the questions in the PMR chart.

Review Question	**Response**
What was the purpose of your program?	The purpose of my program is to convert between different measurements. If a user has inches and they need millimeters they can use this to convert the amount of inches to millimeters.
How could your program be useful in the real world?	My program could be useful in the real world by someone who needs to convert measurements. If my program had more conversion options it would be even more helpful to more people.
What is a problem you ran into, and how did you fix it?	A Problem I ran into is when testing my program the output was calculated wrong. I noticed that I switched around the defined calculations. I fixed this by changing the function names.

Describe one thing you would do differently the next time you write a program.	The next time I write a program id make my program have less prompts. In this program I asked multiple times what measurements the user wanted to convert. I'd change it to asking the amount and measurement then what they want it converted to also allowing for more options.