

```
In [ ]: #IV Pt. 1
centigrade = float(input("Please input centigrade value: "))
fahrenheit = round((centigrade * 9/5) + 32, 2)
print(f"{centigrade} centigrade converted to fahrenheit is {fahrenheit} degree")
```

```
In [14]: #IV Pt. 2
fahrenheit = float(input("Please input fahrenheit value: "))
centigrade = round((fahrenheit - 32) * 5/9, 2)
print(f"{fahrenheit} fahrenheit converted to centigrade is {centigrade} degree")
```

Please input fahrenheit value: 32  
32.0 fahrenheit converted to centigrade is 0.0 degrees.

```
In [ ]: #IV Pt. 3
# Round function added to Pt. 1 and Pt. 2
```

```
In [ ]: #IV Pt. 4
# Values checked, formula works
```

```
In [21]: #IV Pt. 5
# ml to liquid oz
ml = float(input("Please input milliliter value: "))
oz = round(ml * 0.033814, 2)
print(f"{ml} milliliters converted to liquid ounces is {oz} oz.")

# liquid oz to ml
oz = float(input("Please input liquid ounce value: "))
ml = round(oz / 0.033814, 2)
print(f"{oz} liquid ounces converted to milliliters is {ml} ml.")

# grams to ounces
grams = float(input("Please input grams value: "))
ounces = round(grams * 0.035274, 2)
print(f"{grams} grams converted to ounces is {ounces} oz.")

# ounces to grams
ounces = float(input("Please input ounce value: "))
grams = round(ounces / 0.035274, 2)
print(f"{ounces} ounces converted to grams is {grams} g.")
```

Please input milliliter value: 93  
93.0 milliliters converted to liquid ounces is 3.14 oz.  
Please input liquid ounce value: 93  
93.0 liquid ounces converted to milliliters is 2750.34 ml.  
Please input grams value: 93  
93.0 grams converted to ounces is 3.28 oz.  
Please input ounce value: 93  
93.0 ounces converted to grams is 2636.5 g.

```
In [30]: #IV Pt. 6 - 12
# Creates a loop that continues unless you provide a valid option
while True:
    choice = input("Please type F if you want to convert from Fahrenheit to Ce
    if choice == "F":
        fahrenheit = float(input("Please input fahrenheit value: "))
        centigrade = round((fahrenheit - 32) * 5/9, 2)
        print(f"{fahrenheit} fahrenheit converted to centigrade is {centigrade}
        break
    elif choice == "C":
        centigrade = float(input("Please input centigrade value: "))
        fahrenheit = round((centigrade * 9/5) + 32, 2)
        print(f"{centigrade} centigrade converted to fahrenheit is {fahrenheit}
        break
    else:
        print("You are not providing a valid option. You must type F if you wa
```

Please type F if you want to convert from Fahrenheit to Centigrade. Digit C i  
f you want to convert from Centigrade to Fahrenheit: F  
Please input fahrenheit value: 93  
93.0 fahrenheit converted to centigrade is 33.89 degrees.

```
In [ ]: #V Sweigart Coin Change Pseudocode
# Ask user for input
user input change

# Starts total coin count at 0
total = 0

# Calculates number of quarters
quarters = change / 25
Add quarters to total
Subtract quarters * 25 from change
If quarters > 0, print "There will be {quarters} quarters."

# Calculates number of dimes
dimes = change / 10
Add dimes to total
Subtract dimes * 10 from change
If dimes > 0, print "There will be {dimes} dimes."

# Calculates number of nickels
nickels = change / 5
Add nickels to total
Subtract nickels * 5 from change
If dimes > 0, print "There will be {nickels} nickels."

# Defines remaining change as pennies
Add pennies to total
If pennies > 0, print "There will be {pennies} pennies."

# Prints total number of coins
print "Total number of coins: {total}"
```

```
In [ ]: #V Sweigart Coin Change Script
# Uses math library
import math

# Asks user to input change in cents
change = int(input("Please input your change (in cents): "))

# Sets starting amount of coins to zero
# Will use this variable to display total number of coins used
total = 0

# Calculates number of quarters
# Floor Divides remaining change by 25
quarters = change // 25
# Adds number of quarters to total
total += quarters
# Subtracts number of quarters * 25
change -= quarters * 25
# Checks to see if quarter value is greater than 1, and if so prints amount
if quarters > 0:
    print(f"There will be {quarters} quarters.")

# Calculates number of dimes
# Floor Divides remaining change by 10
dimes = change // 10
# Adds number of dimes to total
total += dimes
# Subtracts number of dimes * 10
change -= dimes * 10
# Checks to see if dimes value is greater than 1, and if so prints amount
if dimes > 0:
    print(f"There will be {dimes} dimes.")

# Calculates number of nickels
# Floor Divides remaining change by 5
nickels = change // 5
# Adds number of nickels to total
total += nickels
# Subtracts number of nickels * 5
change -= nickels * 5
# Checks to see if nickel value is greater than 1, and if so prints amount
if nickels > 0:
    print(f"There will be {nickels} nickels.")

# Adds remaining change to total coin number
total += change
# Checks to see if any change is remaining, and then prints that number
if change > 0:
    print(f"There will be {change} pennies.")

# Prints total number of coins used
print(f"Total number of coins: {total}")
```

