Help user find degF or degC based on their Conversion Selection. Use Case Statement and ensure that the inputs are within the Freezing Point (0 °C / 32 °F ) and the Boiling Point of Water ( 100 °C / 212 °F )

a. degF = (degC \* 9/5) + 32

b. degC = (degF – 32) \* 5/9

#! /bin/bash

function toFahrenheit(){

degC=$1

degF=$(((degC\*(9/5))+32))

echo $degF

}

function toCelsius(){

degF=$1

degC=$(((degF-32)\*(5/9)))

echo $degC

}

echo "[1] Celsius -> Fahrenheit"

echo "[2] Fahrenheit -> Celsius"

read -p "Enter Choice: " choice

read -p "Enter Temperature: " temp

case $choice in

1)

if [ $temp -lt 0 -o $temp -gt 100 ]

then

echo "Invalid! Celsius [0-100]"

else

result=$(toFahrenheit $temp)

echo $result

fi

;;

2)

if [ $temp -lt 32 -o $temp -gt 212 ]

then

echo "Invalid! Fahrenheit [32-212]"

else

result=$(toCelsius $temp)

echo $result

fi

;;

\*)

echo "Invalid Choice!!"

;;

esac

[1] Celsius -> Fahrenheit

[2] Fahrenheit -> Celsius

Enter Choice: 1

Enter Temperature: 0

32

Write a function to check if the two numbers are Palindromes

#! /bin/bash

function palindrome(){

num=$1

remainder=0

sum=0

temp=$num

while [ $num -gt 0 ]

do

remainder=$((num%10))

sum=$((sum\*10+remainder))

num=$((num/10))

done

if [ $temp -eq $sum ]

then

echo $temp "is Palindrome"

else

echo $temp "is Not Palindrome"

fi

}

read -p "Enter 1st number: " num1

read -p "Enter 2nd number: " num2

res1=$(palindrome $num1)

res2=$(palindrome $num2)

echo $res1

echo $res2

Enter 1st number: 1221

Enter 2nd number: 1000

1221 is Palindrome

1000 is Not Palindrome

Take a number from user and check if the number is a Prime then show that its palindrome is also prime

a. Write function check if number is Prime

b. Write function to get the Palindrome.

c. Check if the Palindrome number is also prime

#! /bin/bash

function palindrome(){

num=$1

remainder=0

sum=0

temp=$num

while [ $num -gt 0 ]

do

remainder=$((num%10))

sum=$((sum\*10+remainder))

num=$((num/10))

done

if [ $temp -eq $sum ]

then

echo 1

else

echo 0

fi

}

function prime(){

num=$1

flag=1

for ((i=2;i<num;i++))

do

if [ $((num%i)) -eq 0 ]

then

flag=0

break;

else

flag=1

fi

done

if [ $flag -eq 1 ]

then

echo 1

else

echo 0

fi

}

read -p "Enter a number: " num

isPrime=$(prime $num)

isPal=$(palindrome $num)

if [ $isPrime -eq 1 -a $isPal -eq 1 ]

then

echo $num "is both Prime and Palindrome"

elif [ $isPrime -eq 1 -a $isPal -eq 0 ]

then

echo $num "is only Prime"

elif [ $isPrime -eq 0 -a $isPal -eq 1 ]

then

echo $num "is only Palindrome"

else

echo $num "is Neither Prime Nor Palindrome"

fi

Enter a number: 313

313 is both Prime and Palindrome