Prob1 :

Q1

1. Use Random Function *((RANDOM))* to get Single Digit

Ans 1:

```
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ cat rando.sh
#!/bin/bash -x

randomCheck=$((RANDOM%10))
echo $randomCheck
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash rando.sh
0

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash rando.sh
6

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash rando.sh
0

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash rando.sh
8
```

Q2

2. Use Random to get Dice Number between 1 to 6

Ans2

```
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ cat dice.sh
#!/bin/bash -x

randomCheck=$((RANDOM%6))
echo $randomCheck
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash dice.sh
3

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash dice.sh
5

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash dice.sh
3

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash dice.sh
1
```

Q3

3. Add two Random Dice Number and Print the Result

Ans

```
#!/bin/bash -x

dice1=$((RANDOM%6))
dice2=$((RANDOM%6))
sum=$((dice1+dice2))
echo $sum
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash res.sh
6

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash res.sh
2

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash res.sh
4

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash res.sh
5
```

Q4

4. Write a program that reads 5 Random 2 Digit values , then find their sum and the average

Ans

```
$ cat sumavg.sh
#!/bin/bash -x

one=$((RANDOM%99))
two=$((RANDOM%99))
three=$((RANDOM%99))
four=$((RANDOM%99))
five=$((RANDOM%99))
sum=$(($one+$two+$three+$four+$five))
avg=$(($sum/5))
echo "The sum of two number is: " $sum
echo "The avg of two number is: " $avg
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash sumavg.sh
The sum of two number is:  292
The avg of two number is:  58

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash sumavg.sh
The sum of two number is:  229
The avg of two number is:  45
```

Q5

5. Unit Conversion
   a. 1ft = 12 in then 42 in = ? ft
   b. Rectangular Plot of 60 feet x 40 feet in meters
   c. Calculate area of 25 such plots in acres

Ans

```
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ cat ftinc.sh
#!/bin/bash -x

a=42
c=$(($a/12))
echo $c
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob1
$ bash ftinc.sh
3
```

Prob 2

Part 1

Q3

3. Write a program that takes a year as input and outputs the Year is a Leap Year or not a Leap Year. A Leap Year checks for 4 Digit Number, Divisible by 4 and not 100 unless divisible by 400.

Ans

```
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob1
$ cat ifel3.sh
#!/bin/bash -x

#echo "Enter the year (YYYY)"
#read year
read -p "Enter year" year

if [ $((year % 4)) -eq 0 ]
then
  if [ $((year % 100)) -eq 0 ]
  then
    if [ $((year % 400)) -eq 0 ]
    then
      echo "its a leap year"
    else
      echo "its not a leap year"
    fi
  else
    echo "Its a leap year"
  fi
else
 echo "its not a leap year"
fi
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob1
$ bash ifel3.sh
Enter year2024
Its a leap year

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob1
$ bash ifel3.sh
Enter year2021
its not a leap year

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob1
$ bash ifel3.sh
Enter year2028
Its a leap year
```

Q4

4. Write a program to simulate a coin flip and print out "Heads" or "Tails" accordingly.

Ans

```
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob1
$ cat ifel4.sh
#!/bin/bash
FLIP=$(($(($RANDOM%2))%2))
if [ $FLIP -eq 1 ];then
    echo "heads"
else
    echo "tails"
fi
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob1
$ bash ifel4.sh
heads

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob1
$ bash ifel4.sh
tails

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob1
$ bash ifel4.sh
tails

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob1
$ bash ifel4.sh
heads
```

Part 2

Q1

1. Read a single digit number and write the number in word

Ans

```
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob2
$ cat ikel1.sh
#!/bin/bash

read -p "Enter a number between 1 and 10 " character
if [ "$character" = "1" ]; then
    echo "You entered one."
elif [ "$character" = "2" ]; then
    echo "You entered two."
elif [ "$character" = "3" ]; then
    echo "You entered three."
elif [ "$character" = "4" ]; then
    echo "You entered four."
elif [ "$character" = "5" ]; then
    echo "You entered five."
elif [ "$character" = "6" ]; then
    echo "You entered six."
elif [ "$character" = "7" ]; then
    echo "You entered seven."
elif [ "$character" = "8" ]; then
    echo "You entered eight."
elif [ "$character" = "9" ]; then
    echo "You entered nine."
else
    echo "You did not enter a number between 1 and 3."
fi
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob2
$ bash ikel1.sh
Enter a number between 1 and 10 4
You entered four.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob2
$ bash ikel1.sh
Enter a number between 1 and 10 8
You entered eight.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob2
$ bash ikel1.sh
Enter a number between 1 and 10 5
You entered five.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob2
$ bash ikel1.sh
Enter a number between 1 and 10 9
You entered nine.
```

Q2

1. Read a single digit number and write the number in word
2. Read a Number and Display the week day (Sunday, Monday,…)
3. Read a Number 1, 10, 100, 1000, etc and display unit, ten, hun

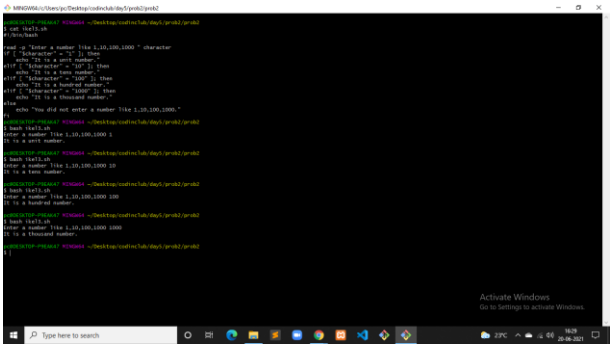
Ans

```
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob2
$ cat ikel2.sh
#!/bin/bash

read -p "Enter a week day between 1 and 7 " character
if [ "$character" = "1" ]; then
    echo "Today is monday."
elif [ "$character" = "2" ]; then
    echo "Today is tuesday."
elif [ "$character" = "3" ]; then
    echo "Today is wednesday."
elif [ "$character" = "4" ]; then
    echo "Today is thursday."
elif [ "$character" = "5" ]; then
    echo "Today is friday."
elif [ "$character" = "6" ]; then
    echo "Today is saturday."
elif [ "$character" = "7" ]; then
    echo "Today is sunday."
else
    echo "You did not enter a day between 1 and 7."
fi
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob2
$ bash ikel2.sh
Enter a week day between 1 and 7 3
Today is wednesday.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob2
$ bash ikel2.sh
Enter a week day between 1 and 7 7
Today is sunday.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob2
$ bash ikel2.sh
Enter a week day between 1 and 7 4
Today is thursday.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob2
$ bash ikel2.sh
Enter a week day between 1 and 7 8
You did not enter a day between 1 and 7.
```

Q3

2. Read a Number and Display the week day (Sunday, Monday,...)
3. Read a Number 1, 10, 100, 1000, etc and display unit, ten, hundred,...
4. Enter 3 Numbers do following arithmetic operation and find the one t

Ans



Part 3

Q1

1. Read a single digit number and write the number in word using Case

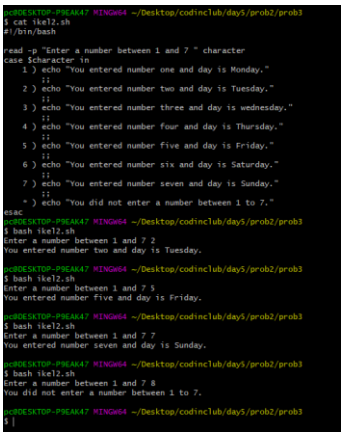
Ans

```
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ cat ikel1.sh
#!/bin/bash

read -p "Enter a number between 1 and 10 " character
case $character in
    1 ) echo "You entered one."
        ;;
    2 ) echo "You entered two."
        ;;
    3 ) echo "You entered three."
        ;;
    4 ) echo "You entered four."
        ;;
    5 ) echo "You entered five."
        ;;
    6 ) echo "You entered six."
        ;;
    7 ) echo "You entered seven."
        ;;
    8 ) echo "You entered eight."
        ;;
    9 ) echo "You entered nine."
        ;;
    * ) echo "You did not enter a number between 1 and 10."
esac
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel1.sh
Enter a number between 1 and 10 4
You entered four.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel1.sh
Enter a number between 1 and 10 8
You entered eight.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel1.sh
Enter a number between 1 and 10 5
You entered five.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel1.sh
Enter a number between 1 and 10 11
You did not enter a number between 1 and 10.
```

Q2

1. Read a single digit number and write the number in word using
2. Read a Number and Display the week day (Sunday, Monday,…)
3. Read a Number 1, 10, 100, 1000, etc and display unit, ten, hundred,…

Ans



```
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ cat ikel2.sh
#!/bin/bash

read -p "Enter a number between 1 and 7 " character
case $character in
    1 ) echo "You entered number one and day is Monday."
        ;;
    2 ) echo "You entered number two and day is Tuesday."
        ;;
    3 ) echo "You entered number three and day is wednesday."
        ;;
    4 ) echo "You entered number four and day is Thursday."
        ;;
    5 ) echo "You entered number five and day is Friday."
        ;;
    6 ) echo "You entered number six and day is Saturday."
        ;;
    7 ) echo "You entered number seven and day is Sunday."
        ;;
    * ) echo "You did not enter a number between 1 to 7."
esac
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel2.sh
Enter a number between 1 and 7 2
You entered number two and day is Tuesday.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel2.sh
Enter a number between 1 and 7 5
You entered number five and day is Friday.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel2.sh
Enter a number between 1 and 7 7
You entered number seven and day is Sunday.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel2.sh
Enter a number between 1 and 7 8
You did not enter a number between 1 to 7.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$
```

Q3

2. Read a Number and Display the week day (Sunday, Monday,…)
3. Read a Number 1, 10, 100, 1000, etc and display unit, ten, hundred,…
4. Write a program that takes User Inputs and does Unit Conversion of

Ans

```
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ cat ikel3.sh
#!/bin/bash

read -p "Enter a number like 1,10,100,1000 " character
case $character in
    1 ) echo "You entered number one and it is ones."
        ;;
    10 ) echo "You entered number ten and it is tens."
        ;;
    100 ) echo "You entered number hundred and it is hundreds."
        ;;
    1000 ) echo "You entered number thousand and it is thousands."
        ;;
    * ) echo "You did not enter a number between 1 to 7."
esac
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel3.sh
Enter a number like 1,10,100,1000 1
You entered number one and it is ones.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel3.sh
Enter a number like 1,10,100,1000 10
You entered number ten and it is tens.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel3.sh
Enter a number like 1,10,100,1000 100
You entered number hundred and it is hundreds.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel3.sh
Enter a number like 1,10,100,1000 1000
You entered number thousand and it is thousands.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$ bash ikel3.sh
Enter a number like 1,10,100,1000 100000
You did not enter a number between 1 to 7.

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclub/day5/prob2/prob3
$
```

Q4

4. Write a program that takes User Inputs and does Unit Conversion of different Length units
    1. Feet to Inch
    2. Feet to Meter
    3. Inch to Feet
    4. Meter to Feet

Ans

```
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclubb/day5/prob2/prob3
$ cat ikel4.sh
#!/bin/bash

read -p "Enter a number" a
read -p "Enter a number between 1 to 4 " character
case $character in
    1 )
          b=$(($a*12))
          echo "the unit conversion of Feet to inch is " $b
        ;;
     2 )
          b=$(($a/12))
          echo "the unit conversion of inch to feet is " $b
        ;;
      3)
          b=`awk " BEGIN { print $a*0.3048 } "`
          echo "the unit conversion of feet to meter is " $b
        ;;
      4)
          b=`awk " BEGIN { print $a/0.3048 } "`
          echo "the unit conversion of meter to feet is " $b
        ;;
    * ) echo "You did not enter a number between 1 to 7."
esac
pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclubb/day5/prob2/prob3
$ bash ikel4.sh
Enter a number2
Enter a number between 1 to 4 1
the unit conversion of Feet to inch is  24

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclubb/day5/prob2/prob3
$ bash ikel4.sh
Enter a number2
Enter a number between 1 to 4 3
the unit conversion of feet to meter is  0.6096

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclubb/day5/prob2/prob3
$ bash ikel4.sh
Enter a number2
Enter a number between 1 to 4 4
the unit conversion of meter to feet is  6.56168

pc@DESKTOP-P9EAK47 MINGW64 ~/Desktop/codinclubb/day5/prob2/prob3
$
```