# 1. Largest of Three Numbers

echo "Enter three numbers : " read a b c

If  then echo "$a is the largest" el if C $b —ge $ a ] && [ $b —ge $c then echo "$b is the largest"

echo "$c is the largest"

2. Leap Year



echo "Enter a year:

read year

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| if ( ( (year 4  echo " $ year  echo " $ year | 0 & & year 00 100 a Leap Year"  Not a Leap Year" | 0 ) |  | 400 | 0 ) | then |

# 3. Valid Triangle Check

echo "Enter three angles of triangle: " read a b c

sum=$ ( (a + b + c) )

 $ sum —eq 180 ) & & then echo "Valid Triangle"

echo " Invalid Triangle

# 4. Character Type Check

echo "Enter a character: " read ch

case $ch 1 n

echo

C 0—9] ) echo "Digit"  echo "Special Character" ; ; esac

# 5. Profit or Loss

echo "Enter Cost Price : " read cp echo "Enter Selling Pruce:

read sp

if  $sp —g t $cp ] ; then profit $ ( (sp cp) ) echo "Profit: $profit " el if I $cp —gt $sp ; then loss——$ ( (cp sp) ) echo "Loss : $ loss "

echo "No Profit No Loss"

# 6. Even and Odd from 1 to 10

|  |  |
| --- | --- |
| echo "Even Numbers :  for i in {1 . 10 } do |  |
| if $ ( (i 00 2 ) )     echo $ i  done  echo "Odd Numbers : " for i in {1 .  do | then |
| if C $ ( (i 00 2 ) )     echo $ i | then |

done

# 7. Multiplication Table

echo "Enter a number: " read num

for i in { 1 . . 1 0 } do

echo "$num x $ i $ ( (num 1 done

# 8. Factorial

echo "Enter a number: " read n fact=l

for ( ( i i<=n; do fact=$ ( (fact i) ) done

echo "Factorial of $n 1 s $ fact"

# 9. Sum of Even Numbers (1 to 10)

sum O for i 1 n {1 . . 1 0 } do if [ $ ( 2 ) ) then s um ( (sum

done echo " Sum of even numbers from 1 to 10 is $ sum"

# 10. Sum of Digits

echo "Enter a number: " read num sum=O

while C $num —g t 0 do digit $ ( (num 00 10) ) sum=$ ( (sum + digit) ) num $ ( (num / 10) ) done

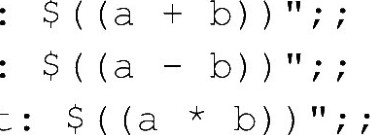
echo "Sum of digits : $ sum "

# 11. Basic Calculator

echo "Enter two numbers : " read a b

echo "Choose operation : read op

case $op in

"Result :

- ) echo "Result  echo Result :

if $b —ne O then echo "Result: b) )

echo "Cannot divide by zero"

echo n valid operation" ; ;

# 12. Days of the Week

days= Sunday" "Monday" "Tuesday" "Wednesday" Thursday" "Friday"

Saturday")

for day in " $ {days C @ ] } do echo $day done

# 13. First 4 Months with 31 Days

months= ( " January" "March" "May" " July"

for month in "$ {months [ @ ] } do echo $month done

# 14. Using Functions

is amstrong ( ) n=$l sum 0 temp=$n

while $ temp —g t 0 ] ; do digit=$ ( (temp % sum=$ ( (sum + digit \* dig It \* digit) ) temp=$ ( (temp / 1 0 ) ) done if $sum -eq $n ] ; then echo Amstrong Number



echo 'Not Amstrong

1 s palindrome n=$l rev=O temp—$n while C $ temp —g t C ] ; do digit $ ( (temp 00 rev=$ ( (rev \* 10 + dig It) ) temp=$ ( (temp / 10) ) done if C $ rev —eq $n ] ; then echo Palindrome "

echo 'Not Palindrome "

fibonacci ( ) 

echo "Fibonacci ser 1 es : " for ( ( i —O ; i < n; do echo —n " $ a

|  |  |
| --- | --- |
| fn $ ( (a + a=$b b=$fn done echo  is prime ( ) n—$l | b ) ) |
| if C $n —le I | ] ; then |
| echo "Not return | Prime |

for ( ( 1=2;do

if i) ) —eq 0 then echo " Composite " return

f1 done echo "Prime "

dec to bin () n=$l bin while [ $n —gt C ] ; do bun=$ ( (n 2) ) $bin

2 ) ) done echo "Binary $bin "