Exercise 1:

Bash

#!/bin/bash

read -p "Enter the upper limit: " limit

sum=0

for ((i=1; i<=limit; i++))

do

sum=$((sum + i))

done

echo "The sum of numbers from 1 to $limit is $sum"

Use code with caution. [Learn more](https://bard.google.com/faq#coding)

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Exercise 2:

Bash

#!/bin/bash

read -p "Enter the number of terms: " terms

t1=0

t2=1

echo "Fibonacci Series:"

for ((i=1; i<=terms; i++))

do

echo -n "$t1 "

nextTerm=$((t1 + t2))

t1=$t2

t2=$nextTerm

done

echo

Use code with caution. [Learn more](https://bard.google.com/faq#coding)

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Exercise 3:

Bash

#!/bin/bash

read -p "Enter a number: " num

isPrime=1

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

do

if ((num % i == 0))

then

isPrime=0

break

fi

done

if ((isPrime == 1))

then

echo "$num is a prime number"

else

echo "$num is not a prime number"

fi

Use code with caution. [Learn more](https://bard.google.com/faq#coding)

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Exercise 4:

Bash

#!/bin/bash

read -p "Enter a number: " num

reversed=0

while ((num > 0))

do

digit=$((num % 10))

reversed=$((reversed \* 10 + digit))

num=$((num / 10))

done

echo "Reversed number: $reversed"

Use code with caution. [Learn more](https://bard.google.com/faq#coding)

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Exercise 5:

Bash

#!/bin/bash

for file in \*

do

echo "$file"

done

Use code with caution. [Learn more](https://bard.google.com/faq#coding)

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Exercise 6:

Bash

#!/bin/bash

read -p "Enter username: " username

read -sp "Enter password: " password

if [[ $username == "correct\_username" && $password == "correct\_password" ]]

then

echo "Access granted"

else

echo "Invalid username or password"

fi

Use code with caution. [Learn more](https://bard.google.com/faq#coding)

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Exercise 7:

Bash

#!/bin/bash

while true

do

echo "Menu:"

echo "1. Addition"

echo "2. Subtraction"

echo "3. Multiplication"

echo "4. Division"

echo "5. Exit"

read -p "Enter your choice: " choice

case $choice in

1) read -p "Enter two numbers: " num1 num2

echo "Sum: $((num1 + num2))"

;;

2) read -p "Enter two numbers: " num1 num2

echo "Difference: $((num1 - num2))"

;;

3) read -p "Enter two numbers: " num1 num2

echo "Product: $((num1 \* num2))"

;;

4) read -p "Enter two numbers: " num1 num2

if [[ $num2 -ne 0 ]]

then

echo "Quotient: $((num1 / num2))"

else

echo "Error: Division by zero"

fi

;;

5) exit

;;

\*) echo "Invalid choice"

;;

esac

done