

3a) To write a shellscript to reverse a digit

Program:

```
^[[200~#!/bin/bash

read -p "Enter a number: " num

reverse=0

while [ $num -gt 0 ]
do
    rem=$(( num % 10 ))
    reverse=$(( reverse * 10 + rem ))
    num=$(( num / 10 ))
done

echo "Reversed number: $reverse"
```

Output:

```
reverseDigit.sh: 1: #!/bin/bash: not found
Enter a number: 123
Reversed number: 321
```

3b) To generate a Fibonacci series using a for loop

Program:

```
#!/bin/bash

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

a=0
b=1

echo "Fibonacci Series up to $n terms:"
for (( i=0; i<n; i++ ))
do
    echo -n "$a "
    fn=$((a + b))
    a=$b
    b=$fn
done

echo
```