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**P1.**

**a)**

```
#!/bin/bash  
  
read -p "extension: " ext  
ls *.$ext
```

**b)**

```
#!/bin/bash  
  
find . -type d -size +$1
```

**c)**

```
#!/bin/bash  
  
read -p "select a start date: " start  
read -p "select a end date: " end  
  
find . -type f -newermt $start ! -newermt $end
```

**d)**

```
#!/bin/bash  
  
awk -F: '{print $1}' /etc/passwd
```

**e)**

```
#!/bin/bash

read -p "Expression: " expr

for file in $(ls)
do
    if [[ -f $file ]] && grep -q $expr $file
    then
        echo $file
    fi
done
```

**P2.**

**a)**

```
#!/bin/bash

factorial ()
{
    if [ $1 -le 1 ]
    then
        echo $1
    else
        echo $(( $1 * $(factorial $(( $1 - 1 ))) ))
    fi
}

echo $(factorial $1)
```

**b)**

```
#!/bin/bash

for (( i=0; i<=$2; i++))
do
    result=$(( $i * $1 ))
    echo "$i x $1 = $result"
done
```

## P3.

a)

```
#!/bin/bash

read -p "current extension: " curr_ext
read -p "new extension: " new_ext

for file in $(find . -regex ".*\.${curr_ext}")
do
    filename="${file##*/}"
    prefix="${filename%.*}"
    mv $filename "${prefix}.${new_ext}"
done
```

b)

```
#!/bin/bash

read -p "file 1: " file1
read -p "file 2: " file2
cat $file1 >> file3.txt
cat $file2 >> file3.txt
cat file3.txt | wc -l
```

## P4.

```
#!/bin/bash

date -d "yesterday ${1}/3/1" +"%d days"
```

## P5.

```
#!/bin/bash

for dir in /bin /etc
do
    echo "${dir}: "
    ls $dir
    sleep 2
done
```

## P6.

```
#!/bin/bash

i=0
while [ $i -lt 20 ]
do
    ((i++))
    echo $i
done
```

## P7.

```
#!/bin/bash

i=0
until [ $i -eq 20 ]
do
    ((i++))
    echo $i
done
```

## P8.

```
#!/bin/bash

sum ()
{
    sum=$(( $1+$2 ))
    echo $sum
}

echo "Result: $(sum $1 $2)"
```

## Referências:

<https://www.freecodecamp.org/news/bash-scripting-tutorial-linux-shell-script-and-command-line-for-beginners/>

<https://linuxconfig.org/bash-scripting-tutorial>

<https://www.w3schools.io/terminal/bash-tutorials/>

[https://www.tutorialspoint.com/unix/shell\\_scripting.htm](https://www.tutorialspoint.com/unix/shell_scripting.htm)