9a) Write a shell script to find factorial of a given integer.

echo "Enter a number"

read num

fact=1

while [ $num -gt 1 ]

do

fact=$((fact \* num)) #fact = fact \* num

num=$((num - 1)) #num = num - 1

done

echo $fact

9 b) Write a C program to create a child process and allow parent to display ‘parent’ and child to display ‘child’.

#include <stdio.h>

#include <unistd.h>

#include <sys/wait.h>

int main(void)

{

int pid;

int status;

pid = fork( );

if(pid < 0)

{

perror("bad fork");

exit(1);

}

else if (pid == 0)

{

printf("I am the child process with id: %d \n", getpid( ));

}

else if (pid > 0)

{

wait(&status);

printf("I am the parent process with id: %d \n", getpid( ));

}

}

9 c) Write a C program in which a parent writes a message to a pipe and the child reads the message

#include<stdio.h>

#include<stdlib.h>

#include<sys/types.h>

#include<unistd.h>

int main()

{

int pfds[2],n;

char buffer[100];

if(pipe(pfds) < 0)

{

perror("Pipe is not created");

exit(1);

}

if(fork()>0)

{

printf("Parent passing value to child\n");

write(pfds[1],"Hello\n",6);

wait( );

}

else if (fork()==0)

{

printf("Child printing received file\n");

n=read(pfds[0],buffer,100);

write(1,buffer,n);

}

}