

16. Design of 4 stage pipeline for multiplication and division of two numbers using any high level language.

Program::

```
a=int(input("enter number 1 :"))
```

```
b=int(input("enter number 2 :"))
```

```
c=3
```

```
f=0
```

```
ch=int(input("1.add,2.sub,3.mul,4.div"))
```

```
if ch==1:
```

```
    print("performing addition operation")
```

```
    res=a+b
```

```
elif ch==2:
```

```
    print("performing subtraction operation")
```

```
    res=a-b
```

```
elif ch==3:
```

```
    print("performing multiplication operation")
```

```
    res=a*b
```

```
elif ch==4:
    print("performing addition operation")
    if b==0:
        print("wrong input")
        f=1
    else:
        res=a/b
else:
    print("wrong input")
    f=1
if f==1:
    print("the cycle value=",c)
    ins=int(input("enter no of instructions="))
    print("the performance measure =",ins/c)
    print("result=",res)
```

OUTPUT::

IDLE Shell 3.11.1

File Edit Shell Debug Options Window Help

Python 3.11.1 (tags/v3.11.1:a7a450f, Dec 6 2022, 19:58:39) [MSC v.1934 64 bit (AMD64)] on win32

Type "help", "copyright", "credits" or "license()" for more information.

>>>

= RESTART: C:\Users\Welcome\AppData\Local\Programs\Python\Python311\4 stage pipeline.py

enter number 1 :47

enter number 2 :98

1.add,2.sub,3.mul,4.div3

performing multiplication operation

the cycle value= 3

enter no of instructions=43

the performance measure = 14.333333333333334

result= 4606

>>>