

Problem 6

– Makefile

```
CC= gcc
CFLAG= -l.
EXE= MatrixCalc
$(EXE): subtraction.o multiplication.o division.o main.o
    $(CC) -o $(EXE) subtraction.o multiplication.o division.o main.o
subtraction.o: subtraction.c subtraction.h
    $(CC) -c subtraction.c $(CFLAG)
multiplication.o: multiplication.c multiplication.h
    $(CC) -c multiplication.c $(CFLAG)
division.o: division.c division.h
    $(CC) -c division.c $(CFLAG)
main.o: main.c subtraction.h multiplication.h division.h
    $(CC) -c main.c $(CFLAG)
clean:
    rm -f *.o $(EXE)
```

– Execution

```
root@os:/home/ubuntu/OpenSourcePython/Report2/Problem6# ls
division.c  main.c      multiplication.c  subtraction.c
division.h  Makefile    multiplication.h  subtraction.h
root@os:/home/ubuntu/OpenSourcePython/Report2/Problem6# make
gcc -c subtraction.c -l.
gcc -c multiplication.c -l.
gcc -c division.c -l.
gcc -c main.c -l.
gcc -o MatrixCalc subtraction.o multiplication.o division.o main.o
root@os:/home/ubuntu/OpenSourcePython/Report2/Problem6# ./MatrixCalc
A's row : 2
A's column : 2
>> input Matrix A
>> 2 4
>> 3 5

B's row : 2
B's column : 2
>> input Matrix B
>> 3 3
>> 8 6

1. Subtraction / 2. Multiplication / 3.Element-wise Division / 0. Quit
>> 1
result
-1      1
-5      -1
1. Subtraction / 2. Multiplication / 3.Element-wise Division / 0. Quit
>> 2
result
38      30
49      39
1. Subtraction / 2. Multiplication / 3.Element-wise Division / 0. Quit
>> 3
result
0        1
0        0
1. Subtraction / 2. Multiplication / 3.Element-wise Division / 0. Quit
>> 0
```