**Name : Aditi Nikam Roll No : 323045**

**GR No : 21910513 Class : TY Comp C2**

**Assignment 5**

**Code:**

import os

file = open("input.txt","r")

precedence=['/','\*','+','-']

vars = []

op = []

def getOp():

    maxpre = 4

    for i in op:

        if precedence.index(i) < maxpre:

            maxpre = precedence.index(i)

    # print('Max:',maxpre)

    op.remove(precedence[maxpre])

    return precedence[maxpre]

def getThreeAddrCode(line):

    s = 'A'

    ptr = 1

    while len(vars) > ptr:

        pos = line.find(getOp())

        # print(pos)

        newvar = line[pos-2:pos+3]

        # print(newvar)

        line = line.replace(newvar,s)

        print(s, " = ", newvar)

        # print("Line",line)

        i = ord(s[0])

        i += 1

        s = chr(i)

        ptr += 1

def findVar(line):

    line = line.split(' ')

    for i in line:

        if i not in precedence:

            vars.append(i)

def findOp(line):

    line = line.split(' ')

    for i in line:

        if i in precedence:

            op.append(i)

for line in file:

    line = line.replace('\n',' ')

    print("Given Expression: ", line)

    findVar(line)

    findOp(line)

getThreeAddrCode(line)

    # line = line.replace('b \* c','A')

    # print(line)

# print(vars)

# print(op)

# getThreeAddrCode(line)

**input.txt:**

b + c / d / a

**Output:**

