**Code:**

#include<iostream>

using namespace std;

double a[4][4];

double b[4][4];

void insert(double x[4][4])

{

double val;

for(int i=0;i<4;i++)

{

for(int j=0;j<4;j++)

{

cin>>val;

x[i][j]=val;

}

}

}

double cal11(double x[4][4])

{

return (x[1][1] \* x[1][2])+ (x[1][2] \* x[2][1]);

}

double cal21(double x[4][4])

{

return (x[3][1] \* x[4][2])+ (x[3][2] \* x[4][1]);

}

double cal12(double x[4][4])

{

return (x[1][3] \* x[2][4])+ (x[1][4] \* x[2][3]);

}

double cal22(double x[4][4])

{

return (x[2][3] \* x[1][4])+ (x[2][4] \* x[1][3]);

}

int main()

{

double a11,a12,a22,a21,b11,b12,b21,b22,a[4][4],b[4][4];

double p,q,r,s,t,u,v,c11,c12,c21,c22;

cout<<"\n a: \n";

insert(a);

cout<<"\n b: \n";

insert(b);

a11=cal11(a);

a12=cal12(a);

a21=cal21(a);

a22=cal22(a);

b11=cal11(b);

b12=cal12(b);

b21=cal21(b);

b22=cal22(b);

p=(a11+a22)\*(b11+b22);

q=(a21+a22)\*b11;

r=a11\*(b12-b22);

s=a22\*(b21-b11);

t=(a11+a12)\*b22;

u=(a11-a21)\*(b11+b12);

v=(a12-a22)\*(b21+b22);

cout<<"\n final matrix";

cout<<"\n"<<p+s-t+v<<" "<<r+t;

cout<<"\n"<<q+s<<" "<<p+r-q+u;

return 0;

}