

```

1  #include<stdio.h>
2
3  int main()
4  {
5      int x1, y1,x2,y2;
6      printf("Enter the value of x1:");
7      scanf("%d",&x1);
8      printf("Enter the value of y1:");
9      scanf("%d",&y1);
10     printf("Enter the value of x2:");
11     scanf("%d",&x2);
12     printf("Enter the value of y2:");
13     scanf("%d",&y2);
14
15     int a,b,c;
16
17     a = x1 -x2;
18     b = y1- y2;
19     c = a*y1 - b*x1;
20
21     if(b!=0)
22     {
23         if(b==1)
24         {
25             printf("x");
26         }
27         else if(b== -1)
28         {
29             printf("-x");
30         }
31
32         else
33         {
34             printf("%dx",b);
35         }
36     }
37
38     if(a>0)
39     {
40
41         if(a==1)
42         {
43             printf("-y");
44         }
45
46         else
47         {
48             printf("-%dy",a);
49         }
50     }
51     else if(a<0)
52     {
53         if(a== -1)
54         {
55             printf("+y");
56         }
57
58         else if(a!=0)
59         {
60             printf("+%dy",a*-1);
61         }
62         else
63         {
64             printf("%dy",a*-1);
65         }
66     }

```

```
67     if(c>0)
68     {
69         printf("+%d",c);
70     }
71     else if (c<0)
72     {
73         printf("%d",c);
74     }
75     }
76     printf("=0");
77     if (a==0 && b==0)
78     {
79         printf("(Math Error)");
80     }
81
82 }
```