

Solution of Quadratic Equation  
And  
Switch Statement

```
/*To find the solution of a quadratic
equation given coefficients: a, b, c*/
#include <stdio.h>
#include<conio.h>
#include <math.h>
void main()
{
float a, b, c, d, root1, root2;
clrscr();
printf("Enter coefficients a, b, c: ");
scanf("%f %f %f ", &a, &b, &c);
d = b*b - 4*a*c;
```

```
if(d==0) {
    printf("\nEqual Roots ");
    printf("Root=%7.2f",-b/(2*a));
}
else if(d>0) {
    root1=(-b+sqrt(d))/(2*a);
    printf("\nRoot1=%7.2f", root1);
    root2=(-b-sqrt(d))/(2*a);
    printf("\nRoot2=%7.2f", root2);
}
else printf("\nNo real root");
getch();
}
```

SI No	Input	Output	
1	1 -7 12	Root1= 4.0	Root2=3.0
2	1 -10 25	Equal Roots	Root=5.0

# Switch statement

**Syntax:** `switch(expr) {  
 case value1: statement1; break;  
 case value2: statement2; break;  
 ...  
 case default: statement3; break;  
}`

When the value of the `expr` is `value1` the `statement1` will be executed.

When the value of the `expr` is `value2` the `statement2` will be executed and so on.

When the expression is not equal to any of the value specified then `statement3` will be executed.

Note that the value of the `expr` should be integer

```
/*Find Point of a given piece in game  
of chess*/
```

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
    char piece; int point = 0;
```

```
    printf("Enter Piece: P : Pawn,
```

```
    N : Knight, B: Bishop, R : Rook,
```

```
    Q : Queen");
```

```
    piece = getchar();
```

```
    switch(piece)
```

```
    {
```

```
        case 'P':    case 'p': point = 1; break;
```

```
        case 'N':    case 'n':
```

```
        case 'B':    case 'b': point = 3; break;
```

```
        case 'R':    case 'r': point = 5; break;
```

```
        case 'Q':    case 'q': point = 9; break;
```

```
    }
```

```
    printf("Point of Piece is %d", point);
```

```
    getch();
```

```
}
```

Sl No	Input	Output
1	P	Point of Piece is 1
2	N	Point of Piece is 3
3	B	Point of Piece is 3
4	R	Point of Piece is 5
5	Q	Point of Piece is 9