```
#include <iostream>
using namespace std;
void draw_circle();                 /* Function prototype */
void draw_intersect();              /* Function prototype */
void draw_base();                   /* Function prototype */
void draw_triangle();               /* Function prototype */
int main(void)
{       draw_circle();                      /* function call */
        draw_triangle();                    /* function call */
        draw_intersect();                   /* function call */
        return(0);
         }

void draw_circle()                  /* Function definition */
{       cout << "   *  " << endl;
        cout << "*     *" << endl;
        cout << " *  * "<<endl;
        }
void draw_intersect()               /* Function definition */
{
        cout << "  /\\ " << endl;
        cout << " /  \\ " << endl;
```

```
        cout << "/    \\ " << endl;
}

void draw_base()                        /* Function definition */
{
        cout << "------" << endl;
}

void draw_triangle()            /* Function definition */
{
        draw_intersect();
        draw_base();
}
```

```
#include<iostream>
#include<cmath>
using namespace std;
double scale(double x, int n);
int main()
{   double num1;
    int num2;
    cout << "Enter a real number:" <<endl;
    cin >> num1;
    cout <<  "Enter an integer: "<<endl;
    cin >> num2;
```

```
    cout << "Result of call to function scale is \n"<< scale(num1,num2);
    return 0;
}
double scale(double x, int n)      /* This function multiplies its first   */
{   double scale_factor;           /* argument by the power of 10      */
    scale_factor = pow(10,n);      /* specified by its second argument */
    return(x * scale_factor);
            }
```

```
#include<iostream>
using namespace std;
int plus5 (int);
int main()
{
        int x=20,z,y,w;
        z=plus5(x);
        cout<<z<<endl;
        y=plus5(x+40);
        cout<<y<<endl;
        w=plus5(plus5(x));
        cout<<w<<endl;
        return 0;
}
int plus5(int x)
{
        return(x+5);
```

```
}
```

```
#include<iostream>
using namespace std;
#include<cmath>
double f(double x, bool &OK)
{
double r=0;
if(x>=1 && x<=2){r=sqrt((x-1)*(2-x));OK=true;}
      else OK=false;
return r;
}
int main()
{
double x,y;
bool OK;
cout<<"Enter x :";
cin>>x;
y=f(x,OK);
if(OK)
cout<<"f(x) is :"<<y<<endl;
 else cout<<"x is not correct"<<endl;
return 0;
}
```

```
#include<iostream>
using namespace std;
#include<cmath>
double distance(double xa, double ya, double xb, double yb)
{
double dx,dy;
dx=xa-xb;
dy=ya-yb;
return sqrt(dx*dx+dy*dy);
}
 int main()
{
double x1,y1,x2,y2,d;
 cout<<"Enter abscissa of A : ";cin>>x1;
cout<<"Enter ordinate of A : ";cin>>y1;
cout<<"Enter abscissa of B : ";cin>>x2;
cout<<"Enter ordinate of B : ";cin>>y2;
 d=distance(x1,y1,x2,y2);
 cout<<"The distance AB is : "<<d<<endl;
return 0;
}
```

```
#include<iostream>
 #include <iomanip>
using namespace std;
```

```
double fact(int number);
int main()
{
        Int n;
        cout<<"Enter an integer n= ";
        cin>>n;

        cout<<"factorial of \t"<<n<<"\t is "<<n<<"! = " <<fact<<endl;
                return 0;

}
double factorial(int number)
{
int fact=1;
for(int i=1;i<=number;i++)
        fact=fact*i;
        cout.setf (ios::fixed);
         cout.setf(ios::showpoint);
          cout.precision(2);
        Return fact;
}
```

```
#include<iostream>
using namespace std;
void function1();
int main()
```

```
{   int z;              /* local declaration */
    z = 5;
    function1();
   cout << "The value of z inside function main is " <<z<<endl;
    return 0;
            }
void function1()
{
  int z;                /* local declaration */
    cout << "The value of z inside functin1 is " <<z<<endl;
}
```

```
#include<iostream>
using namespace std;
int z;                  /* global declaration */
void function1();
int main()
{   int z;              /* local declaration */
    z = 5;
    function1();
    cout << "The value of z inside function main is " <<z<<endl;
    return 0;
            }
void function1()
{
int z;                  /* local declaration */     cout << "The value of z inside functin1 is " <<z<<endl;}
}
```