



CS1004 OOP

Functions

Function

```
int main()
{
    cout << "This is
main function.\n";
    return 0;
}
```

Function

```
• void Message(int x);  
• int main()  
  {  
    cout << "This is  
    main function.\n";  
    Message(10);  
    return 0;  
  }  
• void Message(int x)  
  {  
    if (x > 0)  
    {  
      cout << "X is  
      greater than  
      zero.\n";  
    }  
    return;  
  }
```

- Declaration
- Call
- Definition
- void return type
- Message Function name
- int x parameter

Function return type

- `int sqr(int) ;`
- `int main()`
- `{`
 - `int z=10;`
 - `int x=sqr(z) ;`
 - `return 0;`
- `}`
- `int sqr(int x)`
 - `{`
 - `return x*x;`
 - `}`

Declaration with definition

```
• int factorial(int x)
• {
    • int res=1;
    • for(int i=1;i<=x;i++)
    • {
        ▪ Res*=i;
    • }
    • return res
• }
• int main()
• {
    • int z=5;
    • int x=factorial(z);
    • return 0;
• }
```

Multiple parameters

```
• int power(int x, int y)
• {
    • int res=1;
    • for(int i=1;i<=y;i++)
    • {
        ▪ res*=x;
    • }
    • return res;
• }
• int main()
• {
    • int y=5,z=6;
    • int x=power(y,z);
    • return 0;
• }
```