

Functions 2

There are more efficient ways to this, but these are simple examples of functions.

Filename: ca6-2a.cpp

This is an program that calls a function that doubles a number and then adds 1 and returns the value back to main.

```
// Name: John Smith
// This program uses a function
#include <iostream>
using namespace std;
int db1(int );
int main()
{   int x, y;

    cin>>x;
    y = db1(x);

    cout<< x<<" Doubled plus 1 is "<<y<<endl;
    return 0;
}
int db1(int a)
{   int result;
    result = a * 2;
    result = result +1;
    return( result );
}
```

Write a program that calls a function that triples a number and then adds 10 and returns the value back to main.

Filename: ca6-2b.cpp

This is a program that does the same thing as the last program, but it passes the value back as a reference parameter instead of returning the value

```
// Name: John Smith
// This program uses a function

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

```

void db1(int , int &);
int main()
{   int x, y;

    cin>>x;
    db1(x, y);

    cout<< x<<" Doubled plus 1 is "<<y<<endl;
    return 0;
}
void db1(int a, int &result)
{
    result = a * 2;
    result = result +1;
    return ;
}

```

Write a program that calls a function that triples a number and then adds 10 and returns the value back to main in the paramater list as a reference parameter.

Filename: ca6-2c.cpp

Write a program that reads in 3 numbers calls a function that doubles each of the 3 numbers.

This program does it for 2 numbers.

```

// Name: John Smith
// This program uses a function
#include <iostream>
using namespace std;
void db(int &, int &);
int main()
{   int x, y;

    cin>>x>>y;
    cout<<"The orginal numbers "<<x<<" "<<y<<endl;
    db(x, y);

    cout<<" Both numbers Doubled are "<<x<<" and "<<y<<endl;
    return 0;
}
void db(int &a, int &b)
{
    a = a * 2;
    b = b * 2;
}

```

```
    return ;  
}
```