

Inheritance

What does the following code print out?

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

class ALPHA {
public:
    ALPHA( ) {
        cout << "a";
    }
    virtual void CLICK( ) {
        cout << "X";
    }
};

class BETA : public ALPHA {
    static int x ;
public:
    void CLICK( ) {
        cout << x++;
    }
};

int BETA::x = 1;

int main( ) {
    ALPHA A;
    BETA B;
    A.CLICK( );
    B.CLICK( );
    ALPHA* ptr = &A;
    ptr -> CLICK( );
    ptr = &B;
    ptr -> CLICK( );    // uses click function of object being pointed to
    A = B;
    A.CLICK( );
    cout << endl;
}
```

OUTPUT:

aaX1X2X