CSc 116 A02 - Fall 2018

Name:

Student Number:

```
What is the output of the syntactically correct C++ program below?
#include <iostream>
                                                            std::cout << "Start" << std::endl;</pre>
#include <memory>
                                                            BagPtr bag =
class SwordBag {
                                                                 std::make shared<SwordBag>();
                                                            bag->swordCount += 2;
public:
    SwordBag() : swordCount{0} {
        std::cout << "Found sword bag" << std::endl;</pre>
                                                                auto bag2 = bag;
                                                                trade(bag2);
    ~SwordBag() {
                                                            std::cout << "End" << std::endl;</pre>
        std::cout << "Lost sword bag" << std::endl;</pre>
                                                            return 0;
                                                        }
    int swordCount;
};
                                                          Output:
                                                          Start
using BagPtr = std::shared_ptr<SwordBag>;
                                                          Found sword bag
void trade(BagPtr& bag) {
                                                          Traded sword
    std::cout << "Traded sword" << std::endl;</pre>
                                                          End
    bag->swordCount--;
                                                          Lost sword bag
}
```