Name: ____

CS5000 Summer 2016 FINAL Exam (Wednesday edition)

1(15)	**2**(15)	**3**(25)	**4**(10)	**5**(20)
6(20)			**Total**(105)	

1. ______ (15 pts) Write a function called max3 that takes three ints and returns an int, the largest of the 3 ints (notice this should still work if there is a tie for max, you can return any int in that case)

2. ________ (15 pts) Write code to create a variable m1, which will contain a HashMap from String to Integer, and put the key “High” associated with the value 10.

3. ______ (25 pts) Given the interface IProduct (on the last page), create a class LaptopComputer that implements said interface (define fields as convenient);
   a. the LaptopComputer constructor takes two parameters, one for name and one for Price;
   b. The isCheap method returns true if the price is less than 300, false otherwise

4. ______ (10 pts) Given your LaptopComputer class above, write code to create a variable p1 of type LaptopComputer, and assign it to a new LaptopComputer named MyBrandSuperCheap and with a cost of $250.

5. ______ (20pts) Write a function removeCheapProduct. that takes a List of IProduct and returns another List of iProduct; the returned value contains all the products in the parameter that are not cheap products. The original list should not be modified.

6. ______ (20pts) Write a function highestPricedProduct, that takes an array of IProduct, and returns a double, the highest price of any product.

```
Interface IProduct {
        void  setName(String name);
        String getName();
        public setPrice(double price);
        double getPrice();
        boolean isCheap();
}
```