Name: _____

CS2113 Quiz 6

20 minutes. TAs will NOT be able to assist you with explaining the code below (this is part of the assessment).

Grading rubric:

- Question 1: 25 points (12.5 for each method)
- Question 2: 75 points (15 for class declaration, 15 for each of the four methods).

1. Below are two interfaces. The `Math` class currently implements the `Bigger` interface. Modify the `Math` class as indicated to also implement the `Smaller` interface as well, **using only methods in the `Bigger` interface** when filling out the return statements.

```
public interface Bigger{
	public double add(double x, double y);
	public double multiply(double x, double y);
}

public interface Smaller{
	public double subtract(double x, double y);
	public double divide(double x, double y);
}

public class Math implements Bigger                                    {

	public double add(double x, double y){
		return x + y;
	}

	public double multiply(double x, double y){
		return x * y;
	}

	public double subtract(double x, double y){

		//returns (x - y)

		return ____________________________________________________;
	}

	public double divide(double x, double y){

		//returns (x / y)

		return ____________________________________________________;
	}

}
```

2. Now rewrite the `Math` class above to **work with generics** instead of just primitive `doubles`. Your `Math` class should now compile with any type of object.

   In addition, **it should now be an abstract class, and all its methods should also be abstract**.

   You don't need to rewrite the two interfaces, just the `Math` class itself (you can ignore anything about interfaces for this question as long as you have all four method signatures above):

[Complete the template on the next page]

```
public abstract class Math

}
```

SCRATCH