

```
class Calculator {  
    public double calculate(double x, double y) {  
        return 0;  
    }  
}
```

```
class Addition extends Calculator {  
  
    public double calculate(double x, double y) {  
        return x + y;  
    }  
}
```

```
class Subtraction extends Calculator {  
  
    public double calculate(double x, double y) {  
        return x - y;  
    }  
}
```

```
class Multiplication extends Calculator {  
  
    public double calculate(double x, double y) {  
        return x * y;  
    }  
}
```

```
class Division extends Calculator {  
  
    public double calculate(double x, double y) {  
        if (y == 0) {
```

```

        System.out.println("Cannot divide by zero.");
        return 0;
    }
    return x / y;
}
}

public class CalculatorApp {
    public static void main(String[] args) {
        double operand1 = 10;
        double operand2 = 2;

        Calculator addition = new Addition();
        Calculator subtraction = new Subtraction();
        Calculator multiplication = new Multiplication();
        Calculator division = new Division();

        System.out.println("Addition: " + addition.calculate(operand1, operand2));
        System.out.println("Subtraction: " + subtraction.calculate(operand1, operand2));
        System.out.println("Multiplication: " + multiplication.calculate(operand1, operand2));
        System.out.println("Division: " + division.calculate(operand1, operand2));
    }
}

```

Output

```

Addition: 12.0
Subtraction: 8.0
Multiplication: 20.0
Division: 5.0

```