File 1: Area and Perimeter of a Circle

```
public class CircleCalculations {
    public static void main(String[] args) {
        double radius = 5.5;
        double pi = Math.PI;

        double perimeter = 2 * radius * pi;
        double area = radius * radius * pi;

        System.out.printf("Perimeter of the circle: %.2f%n", perimeter);
        System.out.printf("Area of the circle: %.2f%n", area);
    }
}
```

File 2: Print Three Sentences

```
public class PrintSentences {
    public static void main(String[] args) {
        System.out.println("Welcome to Java");
        System.out.println("Welcome to Computer Science");
        System.out.println("Programming is fun");
    }
}
```

File 3: Average of Three Numbers

```
import java.util.Scanner;
```

```
public class AverageThreeNumbers {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.println("Enter three numbers:");
        double A = scanner.nextDouble();
        double B = scanner.nextDouble();
        double C = scanner.nextDouble();

        double average = (A + B + C) / 3;
        System.out.printf("The average is: %.2f%n", average);

        scanner.close();
    }
}
```

File 4: Cost of Sending a Fax

```
import java.util.Scanner;

public class FaxCostCalculator {
    public static void main(String[] args) {
        final double SERVICE_CHARGE = 3.00;
        final double FIRST_10_PAGES_COST = 0.20;
        final double ADDITIONAL_PAGE_COST = 0.10;
```

```
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the number of pages to fax: ");
        int pages = scanner.nextInt();

        double totalCost = SERVICE_CHARGE;

        if (pages <= 10) {
            totalCost += pages * FIRST_10_PAGES_COST;
        } else {
            totalCost += 10 * FIRST_10_PAGES_COST + (pages - 10) * ADDITIONAL_PAGE_COST;
        }

        System.out.printf("Total fax cost: $%.2f%n", totalCost);
        scanner.close();
    }
}
```

File 5: Read Two Numbers and Display Their Sum

```
import java.util.Scanner;

public class SumTwoNumbers {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter the first number: ");
        int num1 = scanner.nextInt();
```

```
        System.out.print("Enter the second number: ");
        int num2 = scanner.nextInt();

        int sum = num1 + num2;

        System.out.println("The sum of the two numbers is: " + sum);

        scanner.close();
    }
}
```

File 6: Reserved Words and Identifiers

```
public class ReservedWordsAndIdentifiers {
    public static void main(String[] args) {
        int myFirstProgram = 0;
        int MIX_UP = 1;
        int JavaProgram2 = 2;

        int number = 10;
        System.out.println("Valid identifier example: number = " + number);
    }
}
```

File 7: Data Types and Variable Declarations

```
public class DataTypesDemo {
```

```
    public static void main(String[] args) {
        String firstName = "John";
        double discountedPrice = 19.99;
        int juiceBottles = 5;
        int milesTraveled = 120;
        double highestScore = 95.5;

        System.out.println("First Name: " + firstName);
        System.out.println("Discounted Price: $" + discountedPrice);
        System.out.println("Juice Bottles: " + juiceBottles);
        System.out.println("Miles Traveled: " + milesTraveled);
        System.out.println("Highest Test Score: " + highestScore);
    }
}
```

File 8: Celsius to Fahrenheit Conversion

```
import java.util.Scanner;

public class CelsiusToFahrenheit {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter temperature in Celsius: ");
        double celsius = scanner.nextDouble();

        double fahrenheit = (9.0 / 5.0) * celsius + 32;
```

```
        System.out.printf("Temperature in Fahrenheit: %.2f°F%n", fahrenheit);

        scanner.close();
    }
}
```

File 9: Importing and File Handling

```
import java.io.File;
import java.io.PrintWriter;
import java.util.Scanner;

public class FileHandlingExample {
    public static void main(String[] args) throws Exception {
        Scanner inFile = new Scanner(new File("inData.txt"));
        PrintWriter outFile = new PrintWriter("outData.dat");

        double length = inFile.nextDouble();
        double width = inFile.nextDouble();
        double area = length * width;
        double perimeter = 2 * (length + width);

        double radius = inFile.nextDouble();
        double circleArea = Math.PI * radius * radius;
        double circumference = 2 * Math.PI * radius;
```

```
        String firstName = inFile.next();
        String lastName = inFile.next();
        int age = inFile.nextInt();

        double balance = inFile.nextDouble();
        double interestRate = inFile.nextDouble();
        double newBalance = balance + (balance * (interestRate / 100));

        char letter = inFile.next().charAt(0);
        char nextChar = (char) (letter + 1);

         outFile.printf("Rectangle: Length = %.2f, Width = %.2f, Area = %.2f, Perimeter =
%.2f%n", length, width, area, perimeter);
           outFile.printf("Circle: Radius = %.2f, Area = %.2f, Circumference = %.2f%n",
radius, circleArea, circumference);
        outFile.printf("Name: %s %s, Age: %d%n", firstName, lastName, age);
        outFile.printf("Balance at the end of the month: $%.2f%n", newBalance);
        outFile.printf("The character after '%c' is '%c'%n", letter, nextChar);

        inFile.close();
        outFile.close();
    }
}
```