1

```java
public class DivisibleBy8AndMultipleOf5 {
    public static void main(String[] args) {
        int lowerLimit = 1000;
        int upperLimit = 2000;
        for (int num = lowerLimit; num <= upperLimit; num++) {
            if (num % 8 == 0 && num % 5 == 0) {
                System.out.print(num + " ");
            }
        }
    }
}

```

```
java -cp /tmp/Lh0r7pIgoc DivisibleBy8AndMultipleOf5
1000 1040 1080 1120 1160 1200 1240 1280 1320 1360 1400 1440 1480 1520
    1560 1600 1640 1680 1720 1760 1800 1840 1880 1920 1960 2000
```

```java
import java.util.Scanner;
import java.util.Random;
public class Main {
    public static void main(String[] args) {
        Random rand = new Random();
        int numberToGuess = rand.nextInt(9) + 1;
        int guess = 0;
        Scanner input = new Scanner(System.in);
        while (guess != numberToGuess) {
            System.out.println("Guess a number between 1 and 9
                :");
            guess = input.nextInt();
            if (guess != numberToGuess) {
                System.out.println("Wrong guess, please try
                    again");
            }
        }
        System.out.println("Well guessed!");
        input.close();
    }
}
```

```
java -cp /tmp/2d5WaDyBNE Main
Guess a number between 1 and 9:
1
Wrong guess, please try again
Guess a number between 1 and 9:
5
Wrong guess, please try again
Guess a number between 1 and 9:
2
Wrong guess, please try again
Guess a number between 1 and 9:
4
Wrong guess, please try again
Guess a number between 1 and 9:
9
Well guessed!
```

```java
public class Pattern {
    public static void main(String[] args) {
        int rows = 5;
        for (int i = 1; i <= rows; i++) {
            for (int j = 1; j <= i; j++) {
                System.out.print("* ");
            }
            System.out.println();
        }
        for (int i = rows - 1; i >= 1; i--) {
            for (int j = 1; j <= i; j++) {
                System.out.print("* ");
            }
            System.out.println();
        }
    }
}

```

```
java -cp /tmp/pnxDil3ITT Pattern
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

4

```java
import java.util.Scanner;

public class ReverseWord {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a word: ");
        String input = scanner.nextLine();
        scanner.close();
        char[] charArray = input.toCharArray();
        int start = 0;
        int end = charArray.length - 1;
        while (start < end) {
            char temp = charArray[start];
            charArray[start] = charArray[end];
            charArray[end] = temp;
            start++;
            end--;
        }
        String reversedWord = new String(charArray);
        System.out.println("Reversed word: " + reversedWord);
    }
}

```

```
java -cp /tmp/SaNCxwSeyB ReverseWord
Enter a word: jaswanth
Reversed word: htnawsaj
```

5

```java
import java.util.Scanner;
public class CountDigitsAndLetters {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a string: ");
        String input = scanner.nextLine();
        scanner.close();
        int digitCount = 0;
        int letterCount = 0;
        for (char ch : input.toCharArray()) {
            if (Character.isDigit(ch)) {
                digitCount++;
            } else if (Character.isLetter(ch)) {
                letterCount++;
            }
        }
        System.out.println("Letters " + letterCount);
        System.out.println("Digits " + digitCount);
    }
}

```

```
java -cp /tmp/mWL9XX8b9R CountDigitsAndLetters
Enter a string: jaswanth2005
Letters 8
Digits 4
```

6

```java
import java.util.Scanner;
public class PasswordValidator {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter your password: ");
        String password = scanner.nextLine();
        scanner.close();
        boolean hasLowerCase = false;
        boolean hasUpperCase = false;
        boolean hasDigit = false;
        for (char ch : password.toCharArray()) {
            if (Character.isLowerCase(ch)) {
                hasLowerCase = true;
            } else if (Character.isUpperCase(ch)) {
                hasUpperCase = true;
            } else if (Character.isDigit(ch)) {
                hasDigit = true;
            }
        }
        if (hasLowerCase && hasUpperCase && hasDigit) {
            System.out.println("Password is valid.");
        } else {
            System.out.println("Password is not valid.");
        }
    }
```

```
java -cp /tmp/7OZERYjunZ PasswordValidator
Enter your password: Jashu2005

Password is valid.
```

7

```java
public class EvenDigitNumbers {
    public static void main(String[] args) {
        StringBuilder result = new StringBuilder();
        boolean isFirstNumber = true;
        for (int number = 100; number <= 400; number++) {
            if (areAllDigitsEven(number)) {
                if (!isFirstNumber) {
                    result.append(", ");
                }
                result.append(number);
                isFirstNumber = false;
            }
        }
        System.out.println(result);
    }
    public static boolean areAllDigitsEven(int number) {
        while (number != 0) {
            int digit = number % 10;
            if (digit % 2 != 0) {
                return false;
            }
            number /= 10;
        }
        return true;
    }
```

```
java -cp /tmp/dH4hcxt6UE EvenDigitNumbers
200, 202, 204, 206, 208, 220, 222, 224, 226, 228, 240, 242, 244, 246,
    248, 260, 262, 264, 266, 268, 280, 282, 284, 286, 288, 400
```

8

```java
import java.util.Scanner;
public class MonthToDaysConverter {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the month name: ");
        String monthName = scanner.nextLine();
        int days = getDaysInMonth(monthName);
        if (days > 0) {
            System.out.println("Number of days in " +
                monthName + ": " + days);
        } else {
            System.out.println("Invalid month name.");
        }
        scanner.close();
    }
    public static int getDaysInMonth(String monthName) {
        String lowercaseMonth = monthName.toLowerCase();
        int days;
        switch (lowercaseMonth) {
            case "january":
            case "march":
            case "may":
            case "july":
            case "august":
```

```
java -cp /tmp/KSec537W9X MonthToDaysConverter
Enter the month name: march
Number of days in march: 31
```

```
            case "january":
            case "march":
            case "may":
            case "july":
            case "august":
            case "october":
            case "december":
                days = 31;
                break;
            case "april":
            case "june":
            case "september":
            case "november":
                days = 30;
                break;
            case "february":
                days = 28;
                break;
            default:
                days = -1;
        }
        return days;
    }
}
```

```
java -cp /tmp/KSec537W9X MonthToDaysConverter
Enter the month name: march
Number of days in march: 31
```

```java
public class SumWithRangeCheck {
    public static void main(String[] args) {
        int num1 = 50;
        int num2 = 100;
        int result = sumWithRangeCheck(num1, num2);
        System.out.println("Result: " + result);
    }
    public static int sumWithRangeCheck(int a, int b) {
        int sum = a + b;
        if (sum >= 105 && sum <= 200) {
            return 200;
        }
        return sum;
    }
}

```

```
java -cp /tmp/ilqhqdXFam SumWithRangeCheck
Result: 200
```

```java
public class NumberPattern {
    public static void main(String[] args) {
        int rows = 9;
        for (int i = rows; i >= 1; i--) {
            for (int j = 1; j <= i; j++) {
                System.out.print(i);
            }
            System.out.println();
        }
    }
}

```

```
java -cp /tmp/ZqdiIQS4Mq NumberPattern
999999999
88888888
7777777
666666
55555
4444
333
22
1
```