

1.Program for Check Power of Three ?

```
public class CheckPowerOfNumber {  
  
    public static boolean checkPowersOfThree(int n) {  
        while (n > 0) {  
            if (n % 3 == 2) {  
                return false; // If the remainder is 2, it's not possible to  
represent as a sum of powers of three  
            }  
            n = n / 3; // Divide by 3 to check the next smaller power of three  
        }  
        return true;    }  
  
    public static void main(String[] args) {  
        int n = 120;  
        boolean result = checkPowersOfThree(n);  
  
        System.out.println( n + " sum of powers of three : " + result);  
    }  
}
```

OUTPUT

120 sum of powers of three : true

2.Program for Convert Number to English Word ?

```
public class NumberToWord {

    String[] belowTwenty = {"", "One", "Two", "Three", "Four", "Five", "Six",
        "Seven", "Eight", "Nine", "Ten",
        "Eleven", "Twelve", "Thirteen", "Fourteen", "Fifteen", "Sixteen",
        "Seventeen", "Eighteen", "Nineteen"};

    String[] tens = {"", "", "Twenty", "Thirty", "Forty", "Fifty", "Sixty",
        "Seventy", "Eighty", "Ninety"};

    String[] thousands = {"", "Thousand", "Million", "Billion"};

    // Method to convert a number to English words
    public String numberToWords(int num) {
        if (num == 0) {
            return "Zero";
        }

        String words = "";
        int i = 0;

        // Process groups of three digits at a time
        while (num > 0) {
            if (num % 1000 != 0) {
                words = convertNumber(num % 1000) + thousands[i] + " " + words;
            }
            num /= 1000;
            i++;
        }

        return words.trim();
    }

    //this method to convert a three-digit number to English words
    private String convertNumber(int num) {
        if (num == 0) {
            return "";
        } else if (num < 20) {
            return belowTwenty[num] + " ";
        } else if (num < 100) {
            return tens[num / 10] + " " + convertNumber(num % 10);
        } else {
            return belowTwenty[num / 100] + " Hundred " + convertNumber(num % 100);
        }
    }

    public static void main(String[] args) {
        NumberToWord numword=new NumberToWord();
    }
}
```

```
    int num = 12345;  
    String result = numword.numberToWords(num);  
  
    System.out.println("English Words : " + result);  
}  
}
```

OUTPUT

English Words : Twelve Thousand Three Hundred Forty Five