Convert a non-negative integer to its english words representation. Given input is guaranteed to be less than 231 - 1.

For example,

123 -> "One Hundred Twenty Three"

12345 -> "Twelve Thousand Three Hundred Forty Five"

1234567 -> "One Million Two Hundred Thirty Four Thousand Five Hundred Sixty Seven"

**public** **class** IntegertoEnglishWords {

**public** String numberToWords(**int** num){

**if**(num == 0) **return** "Zero";

**else** **return** numberToWords1(num);

}

**public** String numberToWords1(**int** num) {

String s1 = " ";

**switch**(num) {

**case** 1 : s1 = "One"; **break**;

**case** 2 : s1 = "Two"; **break**;

**case** 3 : s1 = "Three";**break**;

**case** 4 : s1 = "Four"; **break**;

**case** 5 : s1 = "Five"; **break**;

**case** 6 : s1 = "Six"; **break**;

**case** 7 : s1 = "Seven"; **break**;

**case** 8 : s1 = "Eight"; **break**;

**case** 9 : s1 = "Nine"; **break**;

**case** 10 : s1 = "Ten"; **break**;

**case** 11 : s1 = "Eleven"; **break**;

**case** 12 : s1 = "Twelve"; **break**;

**case** 13 : s1 = "Thirteen";**break**;

**case** 14 : s1 = "Fourteen"; **break**;

**case** 15 : s1 = "Fifteen"; **break**;

**case** 16 : s1 = "Sixteen"; **break**;

**case** 17 : s1 = "Seventeen"; **break**;

**case** 18 : s1 = "Eighteen"; **break**;

**case** 19 : s1 = "Nineteen"; **break**;

}

**if** (num < 20) **return** s1;

**else** **if** (num < 100){

String s2 = " ";

**int** a = num/10;

**switch**(a) {

**case** 2 : s2 = "Twenty"; **break**;

**case** 3 : s2 = "Thirty";**break**;

**case** 4 : s2 = "Fourty"; **break**;

**case** 5 : s2 = "Fifty"; **break**;

**case** 6 : s2 = "Sixty"; **break**;

**case** 7 : s2 = "Seventy"; **break**;

**case** 8 : s2 = "Eighty"; **break**;

**case** 9 : s2 = "Ninety"; **break**;

}

**if** (num%10 == 0) **return** s2;

**else** **return** s2+" "+numberToWords(num%10);

}

**else** **if** (num < 1000){

String s3 = "";

**int** a = num/100;

**switch**(a) {

**case** 1 : s3 = "One"; **break**;

**case** 2 : s3 = "Two"; **break**;

**case** 3 : s3 = "Three";**break**;

**case** 4 : s3 = "For"; **break**;

**case** 5 : s3 = "Five"; **break**;

**case** 6 : s3 = "Six"; **break**;

**case** 7 : s3 = "Seven"; **break**;

**case** 8 : s3 = "Eight"; **break**;

**case** 9 : s3 = "Nine"; **break**;

}

**if** (num%100 == 0) **return** s3+" Hundred";

**else** **return** s3+" "+"Hundred"+" "+numberToWords(num-num/100\*100);

}

**else** **if** (num < 1000000){

**if** (num%1000 == 0) **return** numberToWords(num/1000)+" Thousand";

**else** **return** numberToWords(num/1000)+" Thousand"+" "+numberToWords(num%1000);

}

**else** **if** (num < 1000000000){

**if** (num%1000000 == 0) **return** numberToWords(num/1000000)+" Million";

**else** **if** (num%1000 == 0) **return** numberToWords(num/1000000)+" Million"+" "+numberToWords(num/1000-(num/1000000)\*1000)+" Thousand";

**else** **if** (num%1000000 == num%1000) **return** numberToWords(num/1000000)+" Million"+" "+numberToWords(num%1000);

**else** **return** numberToWords(num/1000000)+" Million"+" "+numberToWords(num/1000-(num/1000000)\*1000)+" Thousand"+" "+numberToWords(num%1000);

}

**else** **if** (num%1000000000 == 0) **return** numberToWords(num/1000000000)+" Billion ";

**else** **if** (num%1000000 == num%1000&&num%1000000000 != num%1000000&&num%1000 == 0) **return** numberToWords(num/1000000000)+" Billion "+numberToWords(num/1000000-(num/1000000000)\*1000)+" Million ";

**else** **if** (num%1000000 != num%1000&&num%1000000000 == num%1000000&&num%1000 == 0) **return** numberToWords(num/1000000000)+" Billion "+numberToWords(num/1000-(num/1000000)\*1000)+" Thousand";

**else** **if** (num%1000000 != num%1000&&num%1000000000 != num%1000000&&num%1000 == 0) **return** numberToWords(num/1000000000)+" Billion "+numberToWords(num/1000000-(num/1000000000)\*1000)+" Million "+numberToWords(num/1000-(num/1000000)\*1000)+" Thousand";

**else** **if** (num%1000000 == num%1000&&num%1000000000 == num%1000000) **return** numberToWords(num/1000000000)+" Billion "+" "+numberToWords(num%1000);

**else** **if** (num%1000000 == num%1000&&num%1000000000 != num%1000000) **return** numberToWords(num/1000000000)+" Billion "+numberToWords(num/1000000-(num/1000000000)\*1000)+" Million "+" "+numberToWords(num%1000);

**else** **if** (num%1000000 != num%1000&&num%1000000000 == num%1000000) **return** numberToWords(num/1000000000)+" Billion "+numberToWords(num/1000-(num/1000000)\*1000)+" Thousand"+" "+numberToWords(num%1000);

**else** **return** numberToWords(num/1000000000)+" Billion "+numberToWords(num/1000000-(num/1000000000)\*1000)+" Million "+numberToWords(num/1000-(num/1000000)\*1000)+" Thousand"+" "+numberToWords(num%1000);

}

**public** **static** **void** main(String ards[]){

System.***out***.println(**new** IntegertoEnglishWords().numberToWords(0));

System.***out***.println(**new** IntegertoEnglishWords().numberToWords(3055000));

// System.out.println(new IntegertoEnglishWords().numberToWords1(19099));

// System.out.println(new IntegertoEnglishWords().numberToWords1(19118999));

// System.out.println(new IntegertoEnglishWords().numberToWords1(2147483647));

// System.out.println(new IntegertoEnglishWords().numberToWords1(2000483647));

// System.out.println(new IntegertoEnglishWords().numberToWords1(2147000647));

// System.out.println(new IntegertoEnglishWords().numberToWords1(2000000647));

}

}