Q.1.BarAttender

```java
package cs501_hw;
import java.util.Random;

    public class BarAttender {
          private int min; //Work in the range of min to max
        private int max;

        BarAttender(int min, int max) {
            this.min = min;
            this.max = max;
        }

        private int guess(int g, boolean show) {
            int numberOfGuesses  = 1;
            int l = min;
            int r = max;
            if(show = true){
                System.out.print("l:"+l+"\t");
                    System.out.print("r:"+r+"\t");

            while(r >= l){
                int m = l + ((r - l) / 2);
                if(m > g){
                    r = m - 1;
                    System.out.print("l="+l+"\t");
                            System.out.print("r="+r+"\t");
                    numberOfGuesses++;
                    System.out.println("Step: " + numberOfGuesses + " Your
random guess between Left: " + l + " Right: " + r + " Middle : " + m);
                }else if(m < g){
                    l = m + 1;
                    System.out.print("l="+l+"\t");
                            System.out.print("r="+r+"\t");
                    numberOfGuesses++;
                }else{
                   if(m == g)
                        return numberOfGuesses++;
                }
            }
            }
            else
                {
                while(max >= min){

                        int m = min + ((max - min) / 2);
                    if(m > g){
                        max = m - 1;
                        //System.out.println("Max>>"+max);
                        numberOfGuesses++;
                    }else if(m < g){
                        min = m + 1;
                        //System.out.println("min>"+min);
                        numberOfGuesses++;
                    }else{
```

```java
                    if(m == g)
                        return numberOfGuesses++;
                }
            }
        }
        return numberOfGuesses;
    }

    // Cannot change code below
    private static void test(int s, int b, int m, boolean useRandom,
boolean show) {
        Random r = new Random();
        int min = 9999;
        int max = 0;
        BarAttender h = new BarAttender(s, b);
        for (int i = 0; i < m; ++i) {
            int v = i + s;
            if (useRandom) {
                v = RandomInt.getRandomInt(r, s, b); //This gives
number between 1 to 1000000-1
            }
            int n = h.guess(v, show);
            if (n > max) {
                max = n;
            }
            if (n < min) {
                min = n;
            }
        }
        System.out.print("For numbers  between " + s + " to " + b + "
");
        if (useRandom) {
            System.out.print("(random numbers)");
        } else {
            System.out.print("(not random numbers)");
        }
        System.out.println(" the min guess is " + min + " max guess is
" + max);
    }

    // Cannot change code below
    private static void testBench() {
        test(1, 10, 10, false, true);
        test(1, 1000000, 1000, false, false);
        test(1, 1000000, 1000, true, false);
    }
    // Cannot change code below
    public static void main(String[] args) {
        System.out.println("BarAttender.java");
        testBench();
        System.out.println("DONE");
    }
}
```

Output:

l=278564   r=278806   l=278564   r=278684   Step: 14 Your random guess between Left: 278564 Right: 278684 Middle : 278685
l=278564   r=278623   Step: 15 Your random guess between Left: 278564 Right: 278623 Middle : 278624
l=278564   r=278592   Step: 16 Your random guess between Left: 278564 Right: 278592 Middle : 278593
l=278564   r=278577   Step: 17 Your random guess between Left: 278564 Right: 278577 Middle : 278578
l=278571   r=278577   l=278571   r=278573   Step: 19 Your random guess between Left: 278571 Right: 278573 Middle : 278574
l=278571   r=278571   Step: 20 Your random guess between Left: 278571 Right: 278571 Middle : 278572
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999 Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999 Middle : 125000
l=1   r=62499   Step: 5 Your random guess between Left: 1 Right: 62499 Middle : 62500
l=1   r=31249   Step: 6 Your random guess between Left: 1 Right: 31249 Middle : 31250
l=1   r=15624   Step: 7 Your random guess between Left: 1 Right: 15624 Middle : 15625
l=7813   r=15624   l=7813   r=11717   Step: 9 Your random guess between Left: 7813 Right: 11717 Middle : 11718
l=7813   r=9764   Step: 10 Your random guess between Left: 7813 Right: 9764 Middle : 9765
l=7813   r=8787   Step: 11 Your random guess between Left: 7813 Right: 8787 Middle : 8788
l=8301   r=8787   l=8545   r=8787   l=8667   r=8787
l=8728   r=8787   l=8728   r=8756   Step: 16 Your random guess between Left: 8728 Right: 8756 Middle : 8757
l=8743   r=8756   l=8750   r=8756   l:1   r:1000000   l=500001   r=1000000   l=750001   r=1000000   l=750001   r=874999   Step: 4 Your random guess between Left: 750001 Right: 874999 Middle : 875000
l=750001   r=812499   Step: 5 Your random guess between Left: 750001 Right: 812499 Middle : 812500
l=781251   r=812499   l=796876   r=812499   l=796876   r=804686   Step: 8 Your random guess between Left: 796876 Right: 804686 Middle : 804687
l=796876   r=800780   Step: 9 Your random guess between Left: 796876 Right: 800780 Middle : 800781
l=796876   r=798827   Step: 10 Your random guess between Left: 796876 Right: 798827 Middle : 798828
l=796876   r=797850   Step: 11 Your random guess between Left: 796876 Right: 797850 Middle : 797851
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1 Right: 499999 Middle : 500000
l=250001   r=499999   l=250001   r=374999   Step: 4 Your random guess between Left: 250001 Right: 374999 Middle : 375000
l=250001   r=312499   Step: 5 Your random guess between Left: 250001 Right: 312499 Middle : 312500
l=281251   r=312499   l=296876   r=312499   l=296876   r=304686   Step: 8 Your random guess between Left: 296876 Right: 304686 Middle : 304687
l=300782   r=304686   l=300782   r=302733   Step: 10 Your random guess between Left: 300782 Right: 302733 Middle : 302734

l=301758   r=302733   l=302246   r=302733   l=302490   r=302733
       l=302612   r=302733   l=302612   r=302671   Step: 15 Your random
guess between Left: 302612 Right: 302671 Middle : 302672
l=302612   r=302640   Step: 16 Your random guess between Left: 302612
Right: 302640 Middle : 302641
l=302612   r=302625   Step: 17 Your random guess between Left: 302612
Right: 302625 Middle : 302626
l=302619   r=302625   l=302623   r=302625   l:1   r:1000000   l=1
       r=499999   Step: 2 Your random guess between Left: 1 Right: 499999
Middle : 500000
l=250001   r=499999   l=250001   r=374999   Step: 4 Your random guess
between Left: 250001 Right: 374999 Middle : 375000
l=312501   r=374999   l=343751   r=374999   l=343751   r=359374   Step:
7 Your random guess between Left: 343751 Right: 359374 Middle : 359375
l=343751   r=351561   Step: 8 Your random guess between Left: 343751 Right:
351561 Middle : 351562
l=347657   r=351561   l=347657   r=349608   Step: 10 Your random guess
between Left: 347657 Right: 349608 Middle : 349609
l=348633   r=349608   l=349121   r=349608   l=349365   r=349608
       l=349487   r=349608   l=349487   r=349546   Step: 15 Your random
guess between Left: 349487 Right: 349546 Middle : 349547
l=349487   r=349515   Step: 16 Your random guess between Left: 349487
Right: 349515 Middle : 349516
l=349487   r=349500   Step: 17 Your random guess between Left: 349487
Right: 349500 Middle : 349501
l=349494   r=349500   l=349498   r=349500   l=349500   r=349500   l:1
       r:1000000   l=500001   r=1000000   l=750001   r=1000000   l=875001
       r=1000000   l=875001   r=937499   Step: 5 Your random guess between
Left: 875001 Right: 937499 Middle : 937500
l=906251   r=937499   l=906251   r=921874   Step: 7 Your random guess
between Left: 906251 Right: 921874 Middle : 921875
l=914063   r=921874   l=917969   r=921874   l=919922   r=921874
       l=919922   r=920897   Step: 11 Your random guess between Left: 919922
Right: 920897 Middle : 920898
l=919922   r=920408   Step: 12 Your random guess between Left: 919922
Right: 920408 Middle : 920409
l=919922   r=920164   Step: 13 Your random guess between Left: 919922
Right: 920164 Middle : 920165
l=920044   r=920164   l=920105   r=920164   l=920105   r=920133   Step:
16 Your random guess between Left: 920105 Right: 920133 Middle : 920134
l=920120   r=920133   l:1   r:1000000   l=500001   r=1000000   l=750001
       r=1000000   l=875001   r=1000000   l=875001   r=937499   Step: 5
Your random guess between Left: 875001 Right: 937499 Middle : 937500
l=875001   r=906249   Step: 6 Your random guess between Left: 875001 Right:
906249 Middle : 906250
l=875001   r=890624   Step: 7 Your random guess between Left: 875001 Right:
890624 Middle : 890625
l=875001   r=882811   Step: 8 Your random guess between Left: 875001 Right:
882811 Middle : 882812
l=878907   r=882811   l=878907   r=880858   Step: 10 Your random guess
between Left: 878907 Right: 880858 Middle : 880859
l=878907   r=879881   Step: 11 Your random guess between Left: 878907
Right: 879881 Middle : 879882
l=879395   r=879881   l=879639   r=879881   l=879639   r=879759   Step:
14 Your random guess between Left: 879639 Right: 879759 Middle : 879760

l=879639   r=879698   Step: 15 Your random guess between Left: 879639
Right: 879698 Middle : 879699
l=879639   r=879667   Step: 16 Your random guess between Left: 879639
Right: 879667 Middle : 879668
l=879654   r=879667   l=879661   r=879667   l=879661   r=879663   Step:
19 Your random guess between Left: 879661 Right: 879663 Middle : 879664
l:1   r:1000000   l=500001   r=1000000   l=500001   r=749999   Step: 3
Your random guess between Left: 500001 Right: 749999 Middle : 750000
l=500001   r=624999   Step: 4 Your random guess between Left: 500001 Right:
624999 Middle : 625000
l=562501   r=624999   l=562501   r=593749   Step: 6 Your random guess
between Left: 562501 Right: 593749 Middle : 593750
l=578126   r=593749   l=578126   r=585936   Step: 8 Your random guess
between Left: 578126 Right: 585936 Middle : 585937
l=578126   r=582030   Step: 9 Your random guess between Left: 578126 Right:
582030 Middle : 582031
l=578126   r=580077   Step: 10 Your random guess between Left: 578126
Right: 580077 Middle : 580078
l=579102   r=580077   l=579590   r=580077   l=579590   r=579832   Step:
13 Your random guess between Left: 579590 Right: 579832 Middle : 579833
l=579590   r=579710   Step: 14 Your random guess between Left: 579590
Right: 579710 Middle : 579711
l=579590   r=579649   Step: 15 Your random guess between Left: 579590
Right: 579649 Middle : 579650
l=579620   r=579649   l=579620   r=579633   Step: 17 Your random guess
between Left: 579620 Right: 579633 Middle : 579634
l=579620   r=579625   Step: 18 Your random guess between Left: 579620
Right: 579625 Middle : 579626
l=579623   r=579625   l:1   r:1000000   l=500001   r=1000000   l=750001
     r=1000000   l=750001   r=874999   Step: 4 Your random guess between
Left: 750001 Right: 874999 Middle : 875000
l=812501   r=874999   l=812501   r=843749   Step: 6 Your random guess
between Left: 812501 Right: 843749 Middle : 843750
l=828126   r=843749   l=835938   r=843749   l=839844   r=843749
     l=839844   r=841795   Step: 10 Your random guess between Left: 839844
Right: 841795 Middle : 841796
l=839844   r=840818   Step: 11 Your random guess between Left: 839844
Right: 840818 Middle : 840819
l=840332   r=840818   l=840576   r=840818   l=840698   r=840818
     l=840698   r=840757   Step: 15 Your random guess between Left: 840698
Right: 840757 Middle : 840758
l=840728   r=840757   l=840743   r=840757   l=840751   r=840757
     l=840751   r=840753   Step: 19 Your random guess between Left: 840751
Right: 840753 Middle : 840754
l=840753   r=840753   l:1   r:1000000   l=1   r=499999   Step: 2 Your
random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=1   r=62499   Step: 5 Your random guess between Left: 1 Right: 62499
Middle : 62500
l=31251   r=62499   l=46876   r=62499   l=54688   r=62499
     l=54688   r=58592   Step: 9 Your random guess between Left: 54688
Right: 58592 Middle : 58593

l=56641   r=58592   l=56641   r=57615   Step: 11 Your random guess
between Left: 56641 Right: 57615 Middle : 57616
l=57129   r=57615   l=57129   r=57371   Step: 13 Your random guess
between Left: 57129 Right: 57371 Middle : 57372
l=57129   r=57249   Step: 14 Your random guess between Left: 57129 Right:
57249 Middle : 57250
l=57129   r=57188   Step: 15 Your random guess between Left: 57129 Right:
57188 Middle : 57189
l=57159   r=57188   l=57174   r=57188   l=57174   r=57180   Step:
18 Your random guess between Left: 57174 Right: 57180 Middle : 57181
l:1   r:1000000   l=500001   r=1000000   l=750001   r=1000000   l=750001
     r=874999   Step: 4 Your random guess between Left: 750001 Right:
874999 Middle : 875000
l=812501   r=874999   l=843751   r=874999   l=843751   r=859374   Step:
7 Your random guess between Left: 843751 Right: 859374 Middle : 859375
l=851563   r=859374   l=855469   r=859374   l=855469   r=857420   Step:
10 Your random guess between Left: 855469 Right: 857420 Middle : 857421
l=855469   r=856443   Step: 11 Your random guess between Left: 855469
Right: 856443 Middle : 856444
l=855469   r=855955   Step: 12 Your random guess between Left: 855469
Right: 855955 Middle : 855956
l=855713   r=855955   l=855713   r=855833   Step: 14 Your random guess
between Left: 855713 Right: 855833 Middle : 855834
l=855713   r=855772   Step: 15 Your random guess between Left: 855713
Right: 855772 Middle : 855773
l=855743   r=855772   l=855743   r=855756   Step: 17 Your random guess
between Left: 855743 Right: 855756 Middle : 855757
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=250001   r=499999   l=375001   r=499999   l=375001   r=437499   Step:
5 Your random guess between Left: 375001 Right: 437499 Middle : 437500
l=375001   r=406249   Step: 6 Your random guess between Left: 375001 Right:
406249 Middle : 406250
l=390626   r=406249   l=390626   r=398436   Step: 8 Your random guess
between Left: 390626 Right: 398436 Middle : 398437
l=394532   r=398436   l=396485   r=398436   l=397461   r=398436
     l=397949   r=398436   l=398193   r=398436   l=398193   r=398313
     Step: 14 Your random guess between Left: 398193 Right: 398313 Middle :
398314
l=398254   r=398313   l=398284   r=398313   l=398284   r=398297   Step:
17 Your random guess between Left: 398284 Right: 398297 Middle : 398298
l=398291   r=398297   l=398291   r=398293   Step: 19 Your random guess
between Left: 398291 Right: 398293 Middle : 398294
l=398293   r=398293   l:1   r:1000000   l=500001   r=1000000   l=500001
     r=749999   Step: 3 Your random guess between Left: 500001 Right:
749999 Middle : 750000
l=500001   r=624999   Step: 4 Your random guess between Left: 500001 Right:
624999 Middle : 625000
l=500001   r=562499   Step: 5 Your random guess between Left: 500001 Right:
562499 Middle : 562500
l=531251   r=562499   l=546876   r=562499   l=554688   r=562499
     l=558594   r=562499   l=560547   r=562499   l=561524   r=562499
     l=561524   r=562010   Step: 12 Your random guess between Left: 561524
Right: 562010 Middle : 562011
l=561524   r=561766   Step: 13 Your random guess between Left: 561524
Right: 561766 Middle : 561767

l=561524   r=561644   Step: 14 Your random guess between Left: 561524
Right: 561644 Middle : 561645
l=561585   r=561644   l=561585   r=561613   Step: 16 Your random guess
between Left: 561585 Right: 561613 Middle : 561614
l=561585   r=561598   Step: 17 Your random guess between Left: 561585
Right: 561598 Middle : 561599
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=62501   r=124999   l=93751   r=124999   l=109376   r=124999
     l=109376   r=117186   Step: 8 Your random guess between Left: 109376
Right: 117186 Middle : 117187
l=109376   r=113280   Step: 9 Your random guess between Left: 109376 Right:
113280 Middle : 113281
l=109376   r=111327   Step: 10 Your random guess between Left: 109376
Right: 111327 Middle : 111328
l=110352   r=111327   l=110840   r=111327   l=111084   r=111327
     l=111206   r=111327   l=111267   r=111327   l=111267   r=111296
     Step: 16 Your random guess between Left: 111267 Right: 111296 Middle :
111297
l=111267   r=111280   Step: 17 Your random guess between Left: 111267
Right: 111280 Middle : 111281
l=111274   r=111280   l:1   r:1000000   l=1   r=499999   Step: 2 Your
random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=125001   r=249999   l=125001   r=187499   Step: 5 Your random guess
between Left: 125001 Right: 187499 Middle : 187500
l=156251   r=187499   l=156251   r=171874   Step: 7 Your random guess
between Left: 156251 Right: 171874 Middle : 171875
l=164063   r=171874   l=164063   r=167967   Step: 9 Your random guess
between Left: 164063 Right: 167967 Middle : 167968
l=164063   r=166014   Step: 10 Your random guess between Left: 164063
Right: 166014 Middle : 166015
l=164063   r=165037   Step: 11 Your random guess between Left: 164063
Right: 165037 Middle : 165038
l=164551   r=165037   l=164795   r=165037   l=164795   r=164915   Step:
14 Your random guess between Left: 164795 Right: 164915 Middle : 164916
l=164795   r=164854   Step: 15 Your random guess between Left: 164795
Right: 164854 Middle : 164855
l=164795   r=164823   Step: 16 Your random guess between Left: 164795
Right: 164823 Middle : 164824
l=164795   r=164808   Step: 17 Your random guess between Left: 164795
Right: 164808 Middle : 164809
l=164802   r=164808   l=164806   r=164808   l=164806   r=164806   Step:
20 Your random guess between Left: 164806 Right: 164806 Middle : 164807
l:1   r:1000000   l=500001   r=1000000   l=500001   r=749999   Step: 3
Your random guess between Left: 500001 Right: 749999 Middle : 750000
l=625001   r=749999   l=687501   r=749999   l=687501   r=718749   Step:
6 Your random guess between Left: 687501 Right: 718749 Middle : 718750
l=703126   r=718749   l=703126   r=710936   Step: 8 Your random guess
between Left: 703126 Right: 710936 Middle : 710937

l=707032   r=710936   l=707032   r=708983   Step: 10 Your random guess
between Left: 707032 Right: 708983 Middle : 708984
l=708008   r=708983   l=708008   r=708494   Step: 12 Your random guess
between Left: 708008 Right: 708494 Middle : 708495
l=708252   r=708494   l=708374   r=708494   l=708435   r=708494
     l=708465   r=708494   l=708465   r=708478   Step: 17 Your random
guess between Left: 708465 Right: 708478 Middle : 708479
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=62501   r=124999   l=93751   r=124999   l=109376   r=124999
     l=109376   r=117186   Step: 8 Your random guess between Left: 109376
Right: 117186 Middle : 117187
l=113282   r=117186   l=113282   r=115233   Step: 10 Your random guess
between Left: 113282 Right: 115233 Middle : 115234
l=114258   r=115233   l=114258   r=114744   Step: 12 Your random guess
between Left: 114258 Right: 114744 Middle : 114745
l=114502   r=114744   l=114502   r=114622   Step: 14 Your random guess
between Left: 114502 Right: 114622 Middle : 114623
l=114563   r=114622   l=114593   r=114622   l=114593   r=114606   Step:
17 Your random guess between Left: 114593 Right: 114606 Middle : 114607
l=114600   r=114606   l=114604   r=114606   l:1   r:1000000   l=500001
     r=1000000   l=500001   r=749999   Step: 3 Your random guess between
Left: 500001 Right: 749999 Middle : 750000
l=625001   r=749999   l=625001   r=687499   Step: 5 Your random guess
between Left: 625001 Right: 687499 Middle : 687500
l=625001   r=656249   Step: 6 Your random guess between Left: 625001 Right:
656249 Middle : 656250
l=625001   r=640624   Step: 7 Your random guess between Left: 625001 Right:
640624 Middle : 640625
l=625001   r=632811   Step: 8 Your random guess between Left: 625001 Right:
632811 Middle : 632812
l=628907   r=632811   l=628907   r=630858   Step: 10 Your random guess
between Left: 628907 Right: 630858 Middle : 630859
l=629883   r=630858   l=629883   r=630369   Step: 12 Your random guess
between Left: 629883 Right: 630369 Middle : 630370
l=629883   r=630125   Step: 13 Your random guess between Left: 629883
Right: 630125 Middle : 630126
l=629883   r=630003   Step: 14 Your random guess between Left: 629883
Right: 630003 Middle : 630004
l=629944   r=630003   l=629974   r=630003   l=629989   r=630003
     l=629997   r=630003   l:1   r:1000000   l=500001   r=1000000
     l=750001   r=1000000   l=750001   r=874999   Step: 4 Your random
guess between Left: 750001 Right: 874999 Middle : 875000
l=812501   r=874999   l=843751   r=874999   l=843751   r=859374   Step:
7 Your random guess between Left: 843751 Right: 859374 Middle : 859375
l=851563   r=859374   l=855469   r=859374   l=855469   r=857420   Step:
10 Your random guess between Left: 855469 Right: 857420 Middle : 857421
l=856445   r=857420   l=856445   r=856931   Step: 12 Your random guess
between Left: 856445 Right: 856931 Middle : 856932
l=856445   r=856687   Step: 13 Your random guess between Left: 856445
Right: 856687 Middle : 856688

l=856445   r=856565   Step: 14 Your random guess between Left: 856445
Right: 856565 Middle : 856566
l=856506   r=856565   l=856536   r=856565   l:1   r:1000000   l=500001
    r=1000000   l=750001   r=1000000   l=875001   r=1000000   l=875001
    r=937499   Step: 5 Your random guess between Left: 875001 Right:
937499 Middle : 937500
l=875001   r=906249   Step: 6 Your random guess between Left: 875001 Right:
906249 Middle : 906250
l=875001   r=890624   Step: 7 Your random guess between Left: 875001 Right:
890624 Middle : 890625
l=875001   r=882811   Step: 8 Your random guess between Left: 875001 Right:
882811 Middle : 882812
l=878907   r=882811   l=878907   r=880858   Step: 10 Your random guess
between Left: 878907 Right: 880858 Middle : 880859
l=878907   r=879881   Step: 11 Your random guess between Left: 878907
Right: 879881 Middle : 879882
l=879395   r=879881   l=879395   r=879637   Step: 13 Your random guess
between Left: 879395 Right: 879637 Middle : 879638
l=879395   r=879515   Step: 14 Your random guess between Left: 879395
Right: 879515 Middle : 879516
l=879456   r=879515   l=879456   r=879484   Step: 16 Your random guess
between Left: 879456 Right: 879484 Middle : 879485
l=879456   r=879469   Step: 17 Your random guess between Left: 879456
Right: 879469 Middle : 879470
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=250001   r=499999   l=250001   r=374999   Step: 4 Your random guess
between Left: 250001 Right: 374999 Middle : 375000
l=312501   r=374999   l=312501   r=343749   Step: 6 Your random guess
between Left: 312501 Right: 343749 Middle : 343750
l=312501   r=328124   Step: 7 Your random guess between Left: 312501 Right:
328124 Middle : 328125
l=312501   r=320311   Step: 8 Your random guess between Left: 312501 Right:
320311 Middle : 320312
l=316407   r=320311   l=316407   r=318358   Step: 10 Your random guess
between Left: 316407 Right: 318358 Middle : 318359
l=316407   r=317381   Step: 11 Your random guess between Left: 316407
Right: 317381 Middle : 317382
l=316407   r=316893   Step: 12 Your random guess between Left: 316407
Right: 316893 Middle : 316894
l=316407   r=316649   Step: 13 Your random guess between Left: 316407
Right: 316649 Middle : 316650
l=316407   r=316527   Step: 14 Your random guess between Left: 316407
Right: 316527 Middle : 316528
l=316468   r=316527   l=316498   r=316527   l=316513   r=316527
    l=316521   r=316527   l=316521   r=316523   Step: 19 Your random
guess between Left: 316521 Right: 316523 Middle : 316524
l=316521   r=316521   Step: 20 Your random guess between Left: 316521
Right: 316521 Middle : 316522
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000

l=1   r=62499   Step: 5 Your random guess between Left: 1 Right: 62499
Middle : 62500
l=1   r=31249   Step: 6 Your random guess between Left: 1 Right: 31249
Middle : 31250
l=1   r=15624   Step: 7 Your random guess between Left: 1 Right: 15624
Middle : 15625
l=7813   r=15624   l=7813   r=11717   Step: 9 Your random guess
between Left: 7813 Right: 11717 Middle : 11718
l=9766   r=11717   l=10742   r=11717   l=11230   r=11717
     l=11474   r=11717   l=11596   r=11717   l=11657   r=11717
     l=11688   r=11717   l=11703   r=11717   l=11703   r=11709
     Step: 18 Your random guess between Left: 11703 Right: 11709 Middle :
11710
l=11707   r=11709   l=11709   r=11709   l:1   r:1000000   l=1
     r=499999   Step: 2 Your random guess between Left: 1 Right: 499999
Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=125001   r=249999   l=187501   r=249999   l=218751   r=249999
     l=218751   r=234374   Step: 7 Your random guess between Left: 218751
Right: 234374 Middle : 234375
l=218751   r=226561   Step: 8 Your random guess between Left: 218751 Right:
226561 Middle : 226562
l=222657   r=226561   l=222657   r=224608   Step: 10 Your random guess
between Left: 222657 Right: 224608 Middle : 224609
l=223633   r=224608   l=223633   r=224119   Step: 12 Your random guess
between Left: 223633 Right: 224119 Middle : 224120
l=223877   r=224119   l=223877   r=223997   Step: 14 Your random guess
between Left: 223877 Right: 223997 Middle : 223998
l=223938   r=223997   l=223938   r=223966   Step: 16 Your random guess
between Left: 223938 Right: 223966 Middle : 223967
l=223938   r=223951   Step: 17 Your random guess between Left: 223938
Right: 223951 Middle : 223952
l=223945   r=223951   l=223945   r=223947   Step: 19 Your random guess
between Left: 223945 Right: 223947 Middle : 223948
l=223947   r=223947   l:1   r:1000000   l=500001   r=1000000   l=750001
     r=1000000   l=750001   r=874999   Step: 4 Your random guess between
Left: 750001 Right: 874999 Middle : 875000
l=750001   r=812499   Step: 5 Your random guess between Left: 750001 Right:
812499 Middle : 812500
l=750001   r=781249   Step: 6 Your random guess between Left: 750001 Right:
781249 Middle : 781250
l=765626   r=781249   l=765626   r=773436   Step: 8 Your random guess
between Left: 765626 Right: 773436 Middle : 773437
l=769532   r=773436   l=771485   r=773436   l=772461   r=773436
     l=772461   r=772947   Step: 12 Your random guess between Left: 772461
Right: 772947 Middle : 772948
l=772705   r=772947   l=772827   r=772947   l=772827   r=772886   Step:
15 Your random guess between Left: 772827 Right: 772886 Middle : 772887
l:1   r:1000000   l=500001   r=1000000   l=750001   r=1000000   l=875001
     r=1000000   l=937501   r=1000000   l=937501   r=968749   Step: 6
Your random guess between Left: 937501 Right: 968749 Middle : 968750
l=953126   r=968749   l=960938   r=968749   l=960938   r=964842   Step:
9 Your random guess between Left: 960938 Right: 964842 Middle : 964843
l=960938   r=962889   Step: 10 Your random guess between Left: 960938
Right: 962889 Middle : 962890

l=961914   r=962889   l=962402   r=962889   l=962402   r=962644   Step:
13 Your random guess between Left: 962402 Right: 962644 Middle : 962645
l=962524   r=962644   l=962524   r=962583   Step: 15 Your random guess
between Left: 962524 Right: 962583 Middle : 962584
l=962554   r=962583   l=962569   r=962583   l=962569   r=962575   Step:
18 Your random guess between Left: 962569 Right: 962575 Middle : 962576
l=962569   r=962571   Step: 19 Your random guess between Left: 962569
Right: 962571 Middle : 962572
l=962569   r=962569   Step: 20 Your random guess between Left: 962569
Right: 962569 Middle : 962570
l:1   r:1000000   l=500001   r=1000000   l=500001   r=749999   Step: 3
Your random guess between Left: 500001 Right: 749999 Middle : 750000
l=500001   r=624999   Step: 4 Your random guess between Left: 500001 Right:
624999 Middle : 625000
l=562501   r=624999   l=562501   r=593749   Step: 6 Your random guess
between Left: 562501 Right: 593749 Middle : 593750
l=562501   r=578124   Step: 7 Your random guess between Left: 562501 Right:
578124 Middle : 578125
l=562501   r=570311   Step: 8 Your random guess between Left: 562501 Right:
570311 Middle : 570312
l=566407   r=570311   l=568360   r=570311   l=568360   r=569334   Step:
11 Your random guess between Left: 568360 Right: 569334 Middle : 569335
l=568848   r=569334   l=569092   r=569334   l=569214   r=569334
      l=569275   r=569334   l=569275   r=569303   Step: 16 Your random
guess between Left: 569275 Right: 569303 Middle : 569304
l:1   r:1000000   l=500001   r=1000000   l=750001   r=1000000   l=750001
      r=874999   Step: 4 Your random guess between Left: 750001 Right:
874999 Middle : 875000
l=750001   r=812499   Step: 5 Your random guess between Left: 750001 Right:
812499 Middle : 812500
l=750001   r=781249   Step: 6 Your random guess between Left: 750001 Right:
781249 Middle : 781250
l=750001   r=765624   Step: 7 Your random guess between Left: 750001 Right:
765624 Middle : 765625
l=750001   r=757811   Step: 8 Your random guess between Left: 750001 Right:
757811 Middle : 757812
l=753907   r=757811   l=753907   r=755858   Step: 10 Your random guess
between Left: 753907 Right: 755858 Middle : 755859
l=754883   r=755858   l=755371   r=755858   l=755615   r=755858
      l=755615   r=755735   Step: 14 Your random guess between Left: 755615
Right: 755735 Middle : 755736
l=755676   r=755735   l=755706   r=755735   l=755706   r=755719   Step:
17 Your random guess between Left: 755706 Right: 755719 Middle : 755720
l=755713   r=755719   l=755713   r=755715   Step: 19 Your random guess
between Left: 755713 Right: 755715 Middle : 755716
l=755713   r=755713   Step: 20 Your random guess between Left: 755713
Right: 755713 Middle : 755714
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=250001   r=499999   l=375001   r=499999   l=375001   r=437499   Step:
5 Your random guess between Left: 375001 Right: 437499 Middle : 437500
l=375001   r=406249   Step: 6 Your random guess between Left: 375001 Right:
406249 Middle : 406250
l=375001   r=390624   Step: 7 Your random guess between Left: 375001 Right:
390624 Middle : 390625

l=382813   r=390624   l=382813   r=386717   Step: 9 Your random guess between Left: 382813 Right: 386717 Middle : 386718
l=382813   r=384764   Step: 10 Your random guess between Left: 382813 Right: 384764 Middle : 384765
l=383789   r=384764   l=384277   r=384764   l=384277   r=384519   Step: 13 Your random guess between Left: 384277 Right: 384519 Middle : 384520
l=384277   r=384397   Step: 14 Your random guess between Left: 384277 Right: 384397 Middle : 384398
l=384277   r=384336   Step: 15 Your random guess between Left: 384277 Right: 384336 Middle : 384337
l=384307   r=384336   l=384322   r=384336   l=384330   r=384336   l=384330   r=384332   Step: 19 Your random guess between Left: 384330 Right: 384332 Middle : 384333
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999 Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999 Middle : 125000
l=62501   r=124999   l=93751   r=124999   l=109376   r=124999   l=117188   r=124999   l=121094   r=124999   l=123047   r=124999   l=124024   r=124999   l=124024   r=124510   Step: 12 Your random guess between Left: 124024 Right: 124510 Middle : 124511
l=124268   r=124510   l=124268   r=124388   Step: 14 Your random guess between Left: 124268 Right: 124388 Middle : 124389
l=124329   r=124388   l=124359   r=124388   l=124374   r=124388   l=124374   r=124380   Step: 18 Your random guess between Left: 124374 Right: 124380 Middle : 124381
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999 Middle : 250000
l=125001   r=249999   l=125001   r=187499   Step: 5 Your random guess between Left: 125001 Right: 187499 Middle : 187500
l=125001   r=156249   Step: 6 Your random guess between Left: 125001 Right: 156249 Middle : 156250
l=140626   r=156249   l=140626   r=148436   Step: 8 Your random guess between Left: 140626 Right: 148436 Middle : 148437
l=144532   r=148436   l=146485   r=148436   l=146485   r=147459   Step: 11 Your random guess between Left: 146485 Right: 147459 Middle : 147460
l=146485   r=146971   Step: 12 Your random guess between Left: 146485 Right: 146971 Middle : 146972
l=146729   r=146971   l=146729   r=146849   Step: 14 Your random guess between Left: 146729 Right: 146849 Middle : 146850
l=146729   r=146788   Step: 15 Your random guess between Left: 146729 Right: 146788 Middle : 146789
l=146759   r=146788   l=146759   r=146772   Step: 17 Your random guess between Left: 146759 Right: 146772 Middle : 146773
l=146759   r=146764   Step: 18 Your random guess between Left: 146759 Right: 146764 Middle : 146765
l=146759   r=146760   Step: 19 Your random guess between Left: 146759 Right: 146760 Middle : 146761
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999 Middle : 250000

l=125001   r=249999   l=125001   r=187499   Step: 5 Your random guess
between Left: 125001 Right: 187499 Middle : 187500
l=125001   r=156249   Step: 6 Your random guess between Left: 125001 Right:
156249 Middle : 156250
l=125001   r=140624   Step: 7 Your random guess between Left: 125001 Right:
140624 Middle : 140625
l=125001   r=132811   Step: 8 Your random guess between Left: 125001 Right:
132811 Middle : 132812
l=125001   r=128905   Step: 9 Your random guess between Left: 125001 Right:
128905 Middle : 128906
l=125001   r=126952   Step: 10 Your random guess between Left: 125001
Right: 126952 Middle : 126953
l=125001   r=125975   Step: 11 Your random guess between Left: 125001
Right: 125975 Middle : 125976
l=125489   r=125975   l=125733   r=125975   l=125733   r=125853   Step:
14 Your random guess between Left: 125733 Right: 125853 Middle : 125854
l=125794   r=125853   l=125794   r=125822   Step: 16 Your random guess
between Left: 125794 Right: 125822 Middle : 125823
l=125794   r=125807   Step: 17 Your random guess between Left: 125794
Right: 125807 Middle : 125808
l=125794   r=125799   Step: 18 Your random guess between Left: 125794
Right: 125799 Middle : 125800
l=125794   r=125795   Step: 19 Your random guess between Left: 125794
Right: 125795 Middle : 125796
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=250001   r=499999   l=250001   r=374999   Step: 4 Your random guess
between Left: 250001 Right: 374999 Middle : 375000
l=250001   r=312499   Step: 5 Your random guess between Left: 250001 Right:
312499 Middle : 312500
l=281251   r=312499   l=296876   r=312499   l=304688   r=312499
       l=304688   r=308592   Step: 9 Your random guess between Left: 304688
Right: 308592 Middle : 308593
l=304688   r=306639   Step: 10 Your random guess between Left: 304688
Right: 306639 Middle : 306640
l=305664   r=306639   l=305664   r=306150   Step: 12 Your random guess
between Left: 305664 Right: 306150 Middle : 306151
l=305664   r=305906   Step: 13 Your random guess between Left: 305664
Right: 305906 Middle : 305907
l=305786   r=305906   l=305847   r=305906   l=305847   r=305875   Step:
16 Your random guess between Left: 305847 Right: 305875 Middle : 305876
l=305862   r=305875   l=305869   r=305875   l=305873   r=305875   l:1
       r:1000000   l=500001   r=1000000   l=500001   r=749999   Step: 3
Your random guess between Left: 500001 Right: 749999 Middle : 750000
l=500001   r=624999   Step: 4 Your random guess between Left: 500001 Right:
624999 Middle : 625000
l=500001   r=562499   Step: 5 Your random guess between Left: 500001 Right:
562499 Middle : 562500
l=531251   r=562499   l=531251   r=546874   Step: 7 Your random guess
between Left: 531251 Right: 546874 Middle : 546875
l=531251   r=539061   Step: 8 Your random guess between Left: 531251 Right:
539061 Middle : 539062
l=531251   r=535155   Step: 9 Your random guess between Left: 531251 Right:
535155 Middle : 535156
l=531251   r=533202   Step: 10 Your random guess between Left: 531251
Right: 533202 Middle : 533203

l=532227   r=533202   l=532227   r=532713   Step: 12 Your random guess between Left: 532227 Right: 532713 Middle : 532714
l=532471   r=532713   l=532593   r=532713   l=532593   r=532652   Step: 15 Your random guess between Left: 532593 Right: 532652 Middle : 532653
l=532623   r=532652   l=532623   r=532636   Step: 17 Your random guess between Left: 532623 Right: 532636 Middle : 532637
l=532630   r=532636   l=532634   r=532636   l=532636   r=532636   l:1   r:1000000   l=500001   r=1000000   l=500001   r=749999   Step: 3 Your random guess between Left: 500001 Right: 749999 Middle : 750000
l=625001   r=749999   l=687501   r=749999   l=687501   r=718749   Step: 6 Your random guess between Left: 687501 Right: 718749 Middle : 718750
l=687501   r=703124   Step: 7 Your random guess between Left: 687501 Right: 703124 Middle : 703125
l=695313   r=703124   l=699219   r=703124   l=701172   r=703124   l=701172   r=702147   Step: 11 Your random guess between Left: 701172 Right: 702147 Middle : 702148
l=701660   r=702147   l=701904   r=702147   l=702026   r=702147   l=702026   r=702085   Step: 15 Your random guess between Left: 702026 Right: 702085 Middle : 702086
l=702026   r=702054   Step: 16 Your random guess between Left: 702026 Right: 702054 Middle : 702055
l=702026   r=702039   Step: 17 Your random guess between Left: 702026 Right: 702039 Middle : 702040
l=702033   r=702039   l=702037   r=702039   l=702037   r=702037   Step: 20 Your random guess between Left: 702037 Right: 702037 Middle : 702038
l:1   r:1000000   l=500001   r=1000000   l=750001   r=1000000   l=750001   r=874999   Step: 4 Your random guess between Left: 750001 Right: 874999 Middle : 875000
l=750001   r=812499   Step: 5 Your random guess between Left: 750001 Right: 812499 Middle : 812500
l=750001   r=781249   Step: 6 Your random guess between Left: 750001 Right: 781249 Middle : 781250
l=765626   r=781249   l=765626   r=773436   Step: 8 Your random guess between Left: 765626 Right: 773436 Middle : 773437
l=765626   r=769530   Step: 9 Your random guess between Left: 765626 Right: 769530 Middle : 769531
l=765626   r=767577   Step: 10 Your random guess between Left: 765626 Right: 767577 Middle : 767578
l=766602   r=767577   l=766602   r=767088   Step: 12 Your random guess between Left: 766602 Right: 767088 Middle : 767089
l=766846   r=767088   l=766846   r=766966   Step: 14 Your random guess between Left: 766846 Right: 766966 Middle : 766967
l=766846   r=766905   Step: 15 Your random guess between Left: 766846 Right: 766905 Middle : 766906
l=766876   r=766905   l=766876   r=766889   Step: 17 Your random guess between Left: 766876 Right: 766889 Middle : 766890
l=766883   r=766889   l:1   r:1000000   l=500001   r=1000000   l=750001   r=1000000   l=875001   r=1000000   l=937501   r=1000000   l=968751   r=1000000   l=984376   r=1000000   l=984376   r=992187   Step: 8 Your random guess between Left: 984376 Right: 992187 Middle : 992188
l=988282   r=992187   l=990235   r=992187   l=990235   r=991210   Step: 11 Your random guess between Left: 990235 Right: 991210 Middle : 991211
l=990235   r=990721   Step: 12 Your random guess between Left: 990235 Right: 990721 Middle : 990722
l=990235   r=990477   Step: 13 Your random guess between Left: 990235 Right: 990477 Middle : 990478

l=990357   r=990477   l=990357   r=990416   Step: 15 Your random guess
between Left: 990357 Right: 990416 Middle : 990417
l=990387   r=990416   l=990387   r=990400   Step: 17 Your random guess
between Left: 990387 Right: 990400 Middle : 990401
l=990387   r=990392   Step: 18 Your random guess between Left: 990387
Right: 990392 Middle : 990393
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=62501   r=124999   l=93751   r=124999   l=109376   r=124999
     l=109376   r=117186   Step: 8 Your random guess between Left: 109376
Right: 117186 Middle : 117187
l=109376   r=113280   Step: 9 Your random guess between Left: 109376 Right:
113280 Middle : 113281
l=109376   r=111327   Step: 10 Your random guess between Left: 109376
Right: 111327 Middle : 111328
l=110352   r=111327   l=110352   r=110838   Step: 12 Your random guess
between Left: 110352 Right: 110838 Middle : 110839
l=110352   r=110594   Step: 13 Your random guess between Left: 110352
Right: 110594 Middle : 110595
l=110474   r=110594   l=110535   r=110594   l=110535   r=110563   Step:
16 Your random guess between Left: 110535 Right: 110563 Middle : 110564
l=110535   r=110548   Step: 17 Your random guess between Left: 110535
Right: 110548 Middle : 110549
l=110542   r=110548   l=110542   r=110544   Step: 19 Your random guess
between Left: 110542 Right: 110544 Middle : 110545
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=125001   r=249999   l=125001   r=187499   Step: 5 Your random guess
between Left: 125001 Right: 187499 Middle : 187500
l=125001   r=156249   Step: 6 Your random guess between Left: 125001 Right:
156249 Middle : 156250
l=140626   r=156249   l=148438   r=156249   l=152344   r=156249
     l=154297   r=156249   l=154297   r=155272   Step: 11 Your random
guess between Left: 154297 Right: 155272 Middle : 155273
l=154785   r=155272   l=154785   r=155027   Step: 13 Your random guess
between Left: 154785 Right: 155027 Middle : 155028
l=154785   r=154905   Step: 14 Your random guess between Left: 154785
Right: 154905 Middle : 154906
l=154846   r=154905   l=154846   r=154874   Step: 16 Your random guess
between Left: 154846 Right: 154874 Middle : 154875
l=154846   r=154859   Step: 17 Your random guess between Left: 154846
Right: 154859 Middle : 154860
l=154853   r=154859   l=154857   r=154859   l=154859   r=154859   l:1
     r:1000000   l=500001   r=1000000   l=500001   r=749999   Step: 3
Your random guess between Left: 500001 Right: 749999 Middle : 750000
l=625001   r=749999   l=625001   r=687499   Step: 5 Your random guess
between Left: 625001 Right: 687499 Middle : 687500
l=656251   r=687499   l=671876   r=687499   l=679688   r=687499
     l=683594   r=687499   l=685547   r=687499   l=686524   r=687499

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     l=687012    r=687499    l=687012    r=687254    Step: 13 Your random
guess between Left: 687012 Right: 687254 Middle : 687255
l=687012    r=687132    Step: 14 Your random guess between Left: 687012
Right: 687132 Middle : 687133
l=687073    r=687132    l=687073    r=687101    Step: 16 Your random guess
between Left: 687073 Right: 687101 Middle : 687102
l=687088    r=687101    l=687088    r=687093    Step: 18 Your random guess
between Left: 687088 Right: 687093 Middle : 687094
l=687088    r=687089    Step: 19 Your random guess between Left: 687088
Right: 687089 Middle : 687090
l:1    r:1000000    l=1    r=499999    Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1    r=249999    Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=125001    r=249999    l=125001    r=187499    Step: 5 Your random guess
between Left: 125001 Right: 187499 Middle : 187500
l=156251    r=187499    l=156251    r=171874    Step: 7 Your random guess
between Left: 156251 Right: 171874 Middle : 171875
l=156251    r=164061    Step: 8 Your random guess between Left: 156251 Right:
164061 Middle : 164062
l=156251    r=160155    Step: 9 Your random guess between Left: 156251 Right:
160155 Middle : 160156
l=156251    r=158202    Step: 10 Your random guess between Left: 156251
Right: 158202 Middle : 158203
l=156251    r=157225    Step: 11 Your random guess between Left: 156251
Right: 157225 Middle : 157226
l=156739    r=157225    l=156983    r=157225    l=157105    r=157225
     l=157105    r=157164    Step: 15 Your random guess between Left: 157105
Right: 157164 Middle : 157165
l=157135    r=157164    l=157150    r=157164    l=157158    r=157164    l:1
     r:1000000    l=1    r=499999    Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1    r=249999    Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=125001    r=249999    l=187501    r=249999    l=218751    r=249999
     l=234376    r=249999    l=242188    r=249999    l=246094    r=249999
     l=248047    r=249999    l=249024    r=249999    l=249024    r=249510
     Step: 12 Your random guess between Left: 249024 Right: 249510 Middle :
249511
l=249268    r=249510    l=249390    r=249510    l=249390    r=249449    Step:
15 Your random guess between Left: 249390 Right: 249449 Middle : 249450
l=249420    r=249449    l=249420    r=249433    Step: 17 Your random guess
between Left: 249420 Right: 249433 Middle : 249434
l=249420    r=249425    Step: 18 Your random guess between Left: 249420
Right: 249425 Middle : 249426
l=249423    r=249425    l=249425    r=249425    l:1    r:1000000    l=500001
     r=1000000    l=750001    r=1000000    l=875001    r=1000000    l=937501
     r=1000000    l=968751    r=1000000    l=984376    r=1000000    l=984376
     r=992187    Step: 8 Your random guess between Left: 984376 Right:
992187 Middle : 992188
l=988282    r=992187    l=990235    r=992187    l=991212    r=992187
     l=991212    r=991698    Step: 12 Your random guess between Left: 991212
Right: 991698 Middle : 991699
l=991212    r=991454    Step: 13 Your random guess between Left: 991212
Right: 991454 Middle : 991455
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l=991212   r=991332   Step: 14 Your random guess between Left: 991212
Right: 991332 Middle : 991333
l=991212   r=991271   Step: 15 Your random guess between Left: 991212
Right: 991271 Middle : 991272
l=991242   r=991271   l=991257   r=991271   l=991265   r=991271
     l=991265   r=991267   Step: 19 Your random guess between Left: 991265
Right: 991267 Middle : 991268
l:1   r:1000000   l=500001   r=1000000   l=500001   r=749999   Step: 3
Your random guess between Left: 500001 Right: 749999 Middle : 750000
l=500001   r=624999   Step: 4 Your random guess between Left: 500001 Right:
624999 Middle : 625000
l=562501   r=624999   l=562501   r=593749   Step: 6 Your random guess
between Left: 562501 Right: 593749 Middle : 593750
l=578126   r=593749   l=578126   r=585936   Step: 8 Your random guess
between Left: 578126 Right: 585936 Middle : 585937
l=582032   r=585936   l=583985   r=585936   l=583985   r=584959   Step:
11 Your random guess between Left: 583985 Right: 584959 Middle : 584960
l=584473   r=584959   l=584717   r=584959   l=584839   r=584959
     l=584839   r=584898   Step: 15 Your random guess between Left: 584839
Right: 584898 Middle : 584899
l=584869   r=584898   l=584869   r=584882   Step: 17 Your random guess
between Left: 584869 Right: 584882 Middle : 584883
l=584876   r=584882   l:1   r:1000000   l=1   r=499999   Step: 2 Your
random guess between Left: 1 Right: 499999 Middle : 500000
l=250001   r=499999   l=250001   r=374999   Step: 4 Your random guess
between Left: 250001 Right: 374999 Middle : 375000
l=250001   r=312499   Step: 5 Your random guess between Left: 250001 Right:
312499 Middle : 312500
l=250001   r=281249   Step: 6 Your random guess between Left: 250001 Right:
281249 Middle : 281250
l=250001   r=265624   Step: 7 Your random guess between Left: 250001 Right:
265624 Middle : 265625
l=250001   r=257811   Step: 8 Your random guess between Left: 250001 Right:
257811 Middle : 257812
l=250001   r=253905   Step: 9 Your random guess between Left: 250001 Right:
253905 Middle : 253906
l=251954   r=253905   l=251954   r=252928   Step: 11 Your random guess
between Left: 251954 Right: 252928 Middle : 252929
l=252442   r=252928   l=252442   r=252684   Step: 13 Your random guess
between Left: 252442 Right: 252684 Middle : 252685
l=252442   r=252562   Step: 14 Your random guess between Left: 252442
Right: 252562 Middle : 252563
l=252442   r=252501   Step: 15 Your random guess between Left: 252442
Right: 252501 Middle : 252502
l=252472   r=252501   l=252472   r=252485   Step: 17 Your random guess
between Left: 252472 Right: 252485 Middle : 252486
l=252479   r=252485   l=252479   r=252481   Step: 19 Your random guess
between Left: 252479 Right: 252481 Middle : 252482
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=250001   r=499999   l=375001   r=499999   l=437501   r=499999
     l=437501   r=468749   Step: 6 Your random guess between Left: 437501
Right: 468749 Middle : 468750
l=437501   r=453124   Step: 7 Your random guess between Left: 437501 Right:
453124 Middle : 453125

l=437501   r=445311   Step: 8 Your random guess between Left: 437501 Right: 445311 Middle : 445312
l=441407   r=445311   l=441407   r=443358   Step: 10 Your random guess between Left: 441407 Right: 443358 Middle : 443359
l=441407   r=442381   Step: 11 Your random guess between Left: 441407 Right: 442381 Middle : 442382
l=441895   r=442381   l=441895   r=442137   Step: 13 Your random guess between Left: 441895 Right: 442137 Middle : 442138
l=441895   r=442015   Step: 14 Your random guess between Left: 441895 Right: 442015 Middle : 442016
l=441956   r=442015   l=441956   r=441984   Step: 16 Your random guess between Left: 441956 Right: 441984 Middle : 441985
l=441956   r=441969   Step: 17 Your random guess between Left: 441956 Right: 441969 Middle : 441970
l=441963   r=441969   l=441963   r=441965   Step: 19 Your random guess between Left: 441963 Right: 441965 Middle : 441966
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1 Right: 499999 Middle : 500000
l=250001   r=499999   l=250001   r=374999   Step: 4 Your random guess between Left: 250001 Right: 374999 Middle : 375000
l=250001   r=312499   Step: 5 Your random guess between Left: 250001 Right: 312499 Middle : 312500
l=250001   r=281249   Step: 6 Your random guess between Left: 250001 Right: 281249 Middle : 281250
l=250001   r=265624   Step: 7 Your random guess between Left: 250001 Right: 265624 Middle : 265625
l=250001   r=257811   Step: 8 Your random guess between Left: 250001 Right: 257811 Middle : 257812
l=250001   r=253905   Step: 9 Your random guess between Left: 250001 Right: 253905 Middle : 253906
l=250001   r=251952   Step: 10 Your random guess between Left: 250001 Right: 251952 Middle : 251953
l=250001   r=250975   Step: 11 Your random guess between Left: 250001 Right: 250975 Middle : 250976
l=250001   r=250487   Step: 12 Your random guess between Left: 250001 Right: 250487 Middle : 250488
l=250001   r=250243   Step: 13 Your random guess between Left: 250001 Right: 250243 Middle : 250244
l=250001   r=250121   Step: 14 Your random guess between Left: 250001 Right: 250121 Middle : 250122
l=250062   r=250121   l=250092   r=250121   l=250092   r=250105   Step: 17 Your random guess between Left: 250092 Right: 250105 Middle : 250106
l=250092   r=250097   Step: 18 Your random guess between Left: 250092 Right: 250097 Middle : 250098
l=250095   r=250097   l:1   r:1000000   l=500001   r=1000000   l=750001   r=1000000   l=750001   r=874999   Step: 4 Your random guess between Left: 750001 Right: 874999 Middle : 875000
l=750001   r=812499   Step: 5 Your random guess between Left: 750001 Right: 812499 Middle : 812500
l=750001   r=781249   Step: 6 Your random guess between Left: 750001 Right: 781249 Middle : 781250
l=750001   r=765624   Step: 7 Your random guess between Left: 750001 Right: 765624 Middle : 765625
l=750001   r=757811   Step: 8 Your random guess between Left: 750001 Right: 757811 Middle : 757812

l=750001   r=753905   Step: 9 Your random guess between Left: 750001 Right: 753905 Middle : 753906
l=750001   r=751952   Step: 10 Your random guess between Left: 750001 Right: 751952 Middle : 751953
l=750977   r=751952   l=751465   r=751952   l=751465   r=751707   Step: 13 Your random guess between Left: 751465 Right: 751707 Middle : 751708
l=751465   r=751585   Step: 14 Your random guess between Left: 751465 Right: 751585 Middle : 751586
l=751465   r=751524   Step: 15 Your random guess between Left: 751465 Right: 751524 Middle : 751525
l=751495   r=751524   l=751495   r=751508   Step: 17 Your random guess between Left: 751495 Right: 751508 Middle : 751509
l=751502   r=751508   l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999 Middle : 250000
l=125001   r=249999   l=125001   r=187499   Step: 5 Your random guess between Left: 125001 Right: 187499 Middle : 187500
l=125001   r=156249   Step: 6 Your random guess between Left: 125001 Right: 156249 Middle : 156250
l=140626   r=156249   l=140626   r=148436   Step: 8 Your random guess between Left: 140626 Right: 148436 Middle : 148437
l=140626   r=144530   Step: 9 Your random guess between Left: 140626 Right: 144530 Middle : 144531
l=142579   r=144530   l=142579   r=143553   Step: 11 Your random guess between Left: 142579 Right: 143553 Middle : 143554
l=142579   r=143065   Step: 12 Your random guess between Left: 142579 Right: 143065 Middle : 143066
l=142579   r=142821   Step: 13 Your random guess between Left: 142579 Right: 142821 Middle : 142822
l=142579   r=142699   Step: 14 Your random guess between Left: 142579 Right: 142699 Middle : 142700
l=142579   r=142638   Step: 15 Your random guess between Left: 142579 Right: 142638 Middle : 142639
l=142609   r=142638   l=142624   r=142638   l=142632   r=142638   l=142632   r=142634   Step: 19 Your random guess between Left: 142632 Right: 142634 Middle : 142635
l=142632   r=142632   Step: 20 Your random guess between Left: 142632 Right: 142632 Middle : 142633
l:1   r:1000000   l=500001   r=1000000   l=500001   r=749999   Step: 3 Your random guess between Left: 500001 Right: 749999 Middle : 750000
l=500001   r=624999   Step: 4 Your random guess between Left: 500001 Right: 624999 Middle : 625000
l=562501   r=624999   l=562501   r=593749   Step: 6 Your random guess between Left: 562501 Right: 593749 Middle : 593750
l=578126   r=593749   l=578126   r=585936   Step: 8 Your random guess between Left: 578126 Right: 585936 Middle : 585937
l=582032   r=585936   l=582032   r=583983   Step: 10 Your random guess between Left: 582032 Right: 583983 Middle : 583984
l=583008   r=583983   l=583008   r=583494   Step: 12 Your random guess between Left: 583008 Right: 583494 Middle : 583495
l=583252   r=583494   l=583252   r=583372   Step: 14 Your random guess between Left: 583252 Right: 583372 Middle : 583373
l=583313   r=583372   l=583343   r=583372   l=583358   r=583372   l=583366   r=583372   l=583370   r=583372   l=583370   r=583370

        Step: 20 Your random guess between Left: 583370 Right: 583370 Middle :
583371
l:1   r:1000000   l=500001   r=1000000   l=750001   r=1000000   l=750001
     r=874999   Step: 4 Your random guess between Left: 750001 Right:
874999 Middle : 875000
l=812501   r=874999   l=843751   r=874999   l=859376   r=874999
     l=867188   r=874999   l=867188   r=871092   Step: 9 Your random
guess between Left: 867188 Right: 871092 Middle : 871093
l=867188   r=869139   Step: 10 Your random guess between Left: 867188
Right: 869139 Middle : 869140
l=867188   r=868162   Step: 11 Your random guess between Left: 867188
Right: 868162 Middle : 868163
l=867676   r=868162   l=867920   r=868162   l=868042   r=868162
     l=868103   r=868162   l=868103   r=868131   Step: 16 Your random
guess between Left: 868103 Right: 868131 Middle : 868132
l=868103   r=868116   Step: 17 Your random guess between Left: 868103
Right: 868116 Middle : 868117
l=868110   r=868116   l:1   r:1000000   l=1   r=499999   Step: 2 Your
random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=125001   r=249999   l=125001   r=187499   Step: 5 Your random guess
between Left: 125001 Right: 187499 Middle : 187500
l=156251   r=187499   l=171876   r=187499   l=171876   r=179686   Step:
8 Your random guess between Left: 171876 Right: 179686 Middle : 179687
l=175782   r=179686   l=175782   r=177733   Step: 10 Your random guess
between Left: 175782 Right: 177733 Middle : 177734
l=176758   r=177733   l=177246   r=177733   l=177246   r=177488   Step:
13 Your random guess between Left: 177246 Right: 177488 Middle : 177489
l=177368   r=177488   l=177368   r=177427   Step: 15 Your random guess
between Left: 177368 Right: 177427 Middle : 177428
l=177368   r=177396   Step: 16 Your random guess between Left: 177368
Right: 177396 Middle : 177397
l=177368   r=177381   Step: 17 Your random guess between Left: 177368
Right: 177381 Middle : 177382
l=177375   r=177381   l=177375   r=177377   Step: 19 Your random guess
between Left: 177375 Right: 177377 Middle : 177378
l=177375   r=177375   Step: 20 Your random guess between Left: 177375
Right: 177375 Middle : 177376
l:1   r:1000000   l=500001   r=1000000   l=750001   r=1000000   l=875001
     r=1000000   l=937501   r=1000000   l=968751   r=1000000   l=968751
     r=984374   Step: 7 Your random guess between Left: 968751 Right:
984374 Middle : 984375
l=976563   r=984374   l=976563   r=980467   Step: 9 Your random guess
between Left: 976563 Right: 980467 Middle : 980468
l=978516   r=980467   l=978516   r=979490   Step: 11 Your random guess
between Left: 978516 Right: 979490 Middle : 979491
l=979004   r=979490   l=979248   r=979490   l=979370   r=979490
     l=979370   r=979429   Step: 15 Your random guess between Left: 979370
Right: 979429 Middle : 979430
l=979400   r=979429   l=979415   r=979429   l=979423   r=979429
     l=979427   r=979429   l:1   r:1000000   l=1   r=499999   Step: 2
Your random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000

l=125001   r=249999   l=187501   r=249999   l=218751   r=249999
      l=234376   r=249999   l=242188   r=249999   l=242188   r=246092
      Step: 9 Your random guess between Left: 242188 Right: 246092 Middle :
246093
l=244141   r=246092   l=245117   r=246092   l=245117   r=245603   Step:
12 Your random guess between Left: 245117 Right: 245603 Middle : 245604
l=245117   r=245359   Step: 13 Your random guess between Left: 245117
Right: 245359 Middle : 245360
l=245239   r=245359   l=245239   r=245298   Step: 15 Your random guess
between Left: 245239 Right: 245298 Middle : 245299
l=245269   r=245298   l=245269   r=245282   Step: 17 Your random guess
between Left: 245269 Right: 245282 Middle : 245283
l=245269   r=245274   Step: 18 Your random guess between Left: 245269
Right: 245274 Middle : 245275
l=245269   r=245270   Step: 19 Your random guess between Left: 245269
Right: 245270 Middle : 245271
l=245270   r=245270   l:1   r:1000000   l=1   r=499999   Step: 2 Your
random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=125001   r=249999   l=187501   r=249999   l=187501   r=218749   Step:
6 Your random guess between Left: 187501 Right: 218749 Middle : 218750
l=187501   r=203124   Step: 7 Your random guess between Left: 187501 Right:
203124 Middle : 203125
l=195313   r=203124   l=199219   r=203124   l=201172   r=203124
      l=202149   r=203124   l=202637   r=203124   l=202881   r=203124
      l=203003   r=203124   l=203064   r=203124   l=203095   r=203124
      l=203095   r=203108   Step: 17 Your random guess between Left: 203095
Right: 203108 Middle : 203109
l=203102   r=203108   l=203102   r=203104   Step: 19 Your random guess
between Left: 203102 Right: 203104 Middle : 203105
l=203104   r=203104   l:1   r:1000000   l=500001   r=1000000   l=500001
      r=749999   Step: 3 Your random guess between Left: 500001 Right:
749999 Middle : 750000
l=500001   r=624999   Step: 4 Your random guess between Left: 500001 Right:
624999 Middle : 625000
l=500001   r=562499   Step: 5 Your random guess between Left: 500001 Right:
562499 Middle : 562500
l=500001   r=531249   Step: 6 Your random guess between Left: 500001 Right:
531249 Middle : 531250
l=515626   r=531249   l=523438   r=531249   l=523438   r=527342   Step:
9 Your random guess between Left: 523438 Right: 527342 Middle : 527343
l=523438   r=525389   Step: 10 Your random guess between Left: 523438
Right: 525389 Middle : 525390
l=524414   r=525389   l=524902   r=525389   l=525146   r=525389
      l=525268   r=525389   l=525329   r=525389   l=525360   r=525389
      l=525375   r=525389   l=525375   r=525381   Step: 18 Your random
guess between Left: 525375 Right: 525381 Middle : 525382
l=525375   r=525377   Step: 19 Your random guess between Left: 525375
Right: 525377 Middle : 525378
l=525375   r=525375   Step: 20 Your random guess between Left: 525375
Right: 525375 Middle : 525376
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000

l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=62501   r=124999   l=62501   r=93749   Step: 6 Your random guess
between Left: 62501 Right: 93749 Middle : 93750
l=78126   r=93749   l=78126   r=85936   Step: 8 Your random guess
between Left: 78126 Right: 85936 Middle : 85937
l=78126   r=82030   Step: 9 Your random guess between Left: 78126 Right:
82030 Middle : 82031
l=78126   r=80077   Step: 10 Your random guess between Left: 78126 Right:
80077 Middle : 80078
l=79102   r=80077   l=79102   r=79588   Step: 12 Your random guess
between Left: 79102 Right: 79588 Middle : 79589
l=79102   r=79344   Step: 13 Your random guess between Left: 79102 Right:
79344 Middle : 79345
l=79224   r=79344   l=79224   r=79283   Step: 15 Your random guess
between Left: 79224 Right: 79283 Middle : 79284
l=79254   r=79283   l=79269   r=79283   l=79277   r=79283
      l=79277   r=79279   Step: 19 Your random guess between Left: 79277
Right: 79279 Middle : 79280
l=79277   r=79277   Step: 20 Your random guess between Left: 79277 Right:
79277 Middle : 79278
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=125001   r=249999   l=125001   r=187499   Step: 5 Your random guess
between Left: 125001 Right: 187499 Middle : 187500
l=125001   r=156249   Step: 6 Your random guess between Left: 125001 Right:
156249 Middle : 156250
l=125001   r=140624   Step: 7 Your random guess between Left: 125001 Right:
140624 Middle : 140625
l=132813   r=140624   l=132813   r=136717   Step: 9 Your random guess
between Left: 132813 Right: 136717 Middle : 136718
l=134766   r=136717   l=135742   r=136717   l=136230   r=136717
      l=136230   r=136472   Step: 13 Your random guess between Left: 136230
Right: 136472 Middle : 136473
l=136352   r=136472   l=136352   r=136411   Step: 15 Your random guess
between Left: 136352 Right: 136411 Middle : 136412
l=136352   r=136380   Step: 16 Your random guess between Left: 136352
Right: 136380 Middle : 136381
l=136352   r=136365   Step: 17 Your random guess between Left: 136352
Right: 136365 Middle : 136366
l=136359   r=136365   l=136363   r=136365   l:1   r:1000000   l=500001
      r=1000000   l=500001   r=749999   Step: 3 Your random guess between
Left: 500001 Right: 749999 Middle : 750000
l=625001   r=749999   l=687501   r=749999   l=687501   r=718749   Step:
6 Your random guess between Left: 687501 Right: 718749 Middle : 718750
l=703126   r=718749   l=710938   r=718749   l=714844   r=718749
      l=716797   r=718749   l=716797   r=717772   Step: 11 Your random
guess between Left: 716797 Right: 717772 Middle : 717773
l=716797   r=717283   Step: 12 Your random guess between Left: 716797
Right: 717283 Middle : 717284
l=716797   r=717039   Step: 13 Your random guess between Left: 716797
Right: 717039 Middle : 717040
l=716797   r=716917   Step: 14 Your random guess between Left: 716797
Right: 716917 Middle : 716918

l=716858   r=716917   l:1   r:1000000   l=1   r=499999   Step: 2 Your
random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=125001   r=249999   l=125001   r=187499   Step: 5 Your random guess
between Left: 125001 Right: 187499 Middle : 187500
l=156251   r=187499   l=156251   r=171874   Step: 7 Your random guess
between Left: 156251 Right: 171874 Middle : 171875
l=156251   r=164061   Step: 8 Your random guess between Left: 156251 Right:
164061 Middle : 164062
l=156251   r=160155   Step: 9 Your random guess between Left: 156251 Right:
160155 Middle : 160156
l=156251   r=158202   Step: 10 Your random guess between Left: 156251
Right: 158202 Middle : 158203
l=156251   r=157225   Step: 11 Your random guess between Left: 156251
Right: 157225 Middle : 157226
l=156739   r=157225   l=156983   r=157225   l=157105   r=157225
     l=157166   r=157225   l=157196   r=157225   l=157211   r=157225
     l=157219   r=157225   l=157219   r=157221   Step: 19 Your random
guess between Left: 157219 Right: 157221 Middle : 157222
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=125001   r=249999   l=125001   r=187499   Step: 5 Your random guess
between Left: 125001 Right: 187499 Middle : 187500
l=125001   r=156249   Step: 6 Your random guess between Left: 125001 Right:
156249 Middle : 156250
l=125001   r=140624   Step: 7 Your random guess between Left: 125001 Right:
140624 Middle : 140625
l=125001   r=132811   Step: 8 Your random guess between Left: 125001 Right:
132811 Middle : 132812
l=128907   r=132811   l=130860   r=132811   l=130860   r=131834   Step:
11 Your random guess between Left: 130860 Right: 131834 Middle : 131835
l=131348   r=131834   l=131592   r=131834   l=131592   r=131712   Step:
14 Your random guess between Left: 131592 Right: 131712 Middle : 131713
l=131592   r=131651   Step: 15 Your random guess between Left: 131592
Right: 131651 Middle : 131652
l=131622   r=131651   l=131637   r=131651   l=131645   r=131651
     l=131649   r=131651   l=131649   r=131649   Step: 20 Your random
guess between Left: 131649 Right: 131649 Middle : 131650
l:1   r:1000000   l=500001   r=1000000   l=500001   r=749999   Step: 3
Your random guess between Left: 500001 Right: 749999 Middle : 750000
l=625001   r=749999   l=625001   r=687499   Step: 5 Your random guess
between Left: 625001 Right: 687499 Middle : 687500
l=625001   r=656249   Step: 6 Your random guess between Left: 625001 Right:
656249 Middle : 656250
l=640626   r=656249   l=648438   r=656249   l=648438   r=652342   Step:
9 Your random guess between Left: 648438 Right: 652342 Middle : 652343
l=650391   r=652342   l=650391   r=651365   Step: 11 Your random guess
between Left: 650391 Right: 651365 Middle : 651366
l=650879   r=651365   l=650879   r=651121   Step: 13 Your random guess
between Left: 650879 Right: 651121 Middle : 651122
l=650879   r=650999   Step: 14 Your random guess between Left: 650879
Right: 650999 Middle : 651000

l=650940   r=650999   l=650970   r=650999   l=650970   r=650983   Step:
17 Your random guess between Left: 650970 Right: 650983 Middle : 650984
l=650970   r=650975   Step: 18 Your random guess between Left: 650970
Right: 650975 Middle : 650976
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=250001   r=499999   l=250001   r=374999   Step: 4 Your random guess
between Left: 250001 Right: 374999 Middle : 375000
l=250001   r=312499   Step: 5 Your random guess between Left: 250001 Right:
312499 Middle : 312500
l=281251   r=312499   l=296876   r=312499   l=296876   r=304686   Step:
8 Your random guess between Left: 296876 Right: 304686 Middle : 304687
l=300782   r=304686   l=300782   r=302733   Step: 10 Your random guess
between Left: 300782 Right: 302733 Middle : 302734
l=300782   r=301756   Step: 11 Your random guess between Left: 300782
Right: 301756 Middle : 301757
l=301270   r=301756   l=301514   r=301756   l=301514   r=301634   Step:
14 Your random guess between Left: 301514 Right: 301634 Middle : 301635
l=301514   r=301573   Step: 15 Your random guess between Left: 301514
Right: 301573 Middle : 301574
l=301544   r=301573   l=301559   r=301573   l=301567   r=301573
     l=301567   r=301569   Step: 19 Your random guess between Left: 301567
Right: 301569 Middle : 301570
l=301567   r=301567   Step: 20 Your random guess between Left: 301567
Right: 301567 Middle : 301568
l:1   r:1000000   l=500001   r=1000000   l=750001   r=1000000   l=750001
     r=874999   Step: 4 Your random guess between Left: 750001 Right:
874999 Middle : 875000
l=812501   r=874999   l=812501   r=843749   Step: 6 Your random guess
between Left: 812501 Right: 843749 Middle : 843750
l=828126   r=843749   l=828126   r=835936   Step: 8 Your random guess
between Left: 828126 Right: 835936 Middle : 835937
l=832032   r=835936   l=833985   r=835936   l=833985   r=834959   Step:
11 Your random guess between Left: 833985 Right: 834959 Middle : 834960
l=833985   r=834471   Step: 12 Your random guess between Left: 833985
Right: 834471 Middle : 834472
l=834229   r=834471   l=834229   r=834349   Step: 14 Your random guess
between Left: 834229 Right: 834349 Middle : 834350
l=834290   r=834349   l=834290   r=834318   Step: 16 Your random guess
between Left: 834290 Right: 834318 Middle : 834319
l=834290   r=834303   Step: 17 Your random guess between Left: 834290
Right: 834303 Middle : 834304
l=834297   r=834303   l=834297   r=834299   Step: 19 Your random guess
between Left: 834297 Right: 834299 Middle : 834300
l=834299   r=834299   l:1   r:1000000   l=1   r=499999   Step: 2 Your
random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=62501   r=124999   l=62501   r=93749   Step: 6 Your random guess
between Left: 62501 Right: 93749 Middle : 93750
l=62501   r=78124   Step: 7 Your random guess between Left: 62501 Right:
78124 Middle : 78125
l=70313   r=78124   l=70313   r=74217   Step: 9 Your random guess
between Left: 70313 Right: 74217 Middle : 74218

l=72266   r=74217   l=73242   r=74217   l=73730   r=74217
    l=73974   r=74217   l=74096   r=74217   l=74157   r=74217
    l=74157   r=74186   Step: 16 Your random guess between Left: 74157
Right: 74186 Middle : 74187
l=74172   r=74186   l=74180   r=74186   l=74184   r=74186
    l=74184   r=74184   Step: 20 Your random guess between Left: 74184
Right: 74184 Middle : 74185
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=1   r=62499   Step: 5 Your random guess between Left: 1 Right: 62499
Middle : 62500
l=31251   r=62499   l=31251   r=46874   Step: 7 Your random guess
between Left: 31251 Right: 46874 Middle : 46875
l=31251   r=39061   Step: 8 Your random guess between Left: 31251 Right:
39061 Middle : 39062
l=35157   r=39061   l=37110   r=39061   l=37110   r=38084   Step:
11 Your random guess between Left: 37110 Right: 38084 Middle : 38085
l=37598   r=38084   l=37598   r=37840   Step: 13 Your random guess
between Left: 37598 Right: 37840 Middle : 37841
l=37720   r=37840   l=37720   r=37779   Step: 15 Your random guess
between Left: 37720 Right: 37779 Middle : 37780
l=37720   r=37748   Step: 16 Your random guess between Left: 37720 Right:
37748 Middle : 37749
l=37720   r=37733   Step: 17 Your random guess between Left: 37720 Right:
37733 Middle : 37734
l=37727   r=37733   l=37727   r=37729   Step: 19 Your random guess
between Left: 37727 Right: 37729 Middle : 37730
l=37727   r=37727   Step: 20 Your random guess between Left: 37727 Right:
37727 Middle : 37728
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=62501   r=124999   l=93751   r=124999   l=93751   r=109374   Step:
7 Your random guess between Left: 93751 Right: 109374 Middle : 109375
l=101563   r=109374   l=101563   r=105467   Step: 9 Your random guess
between Left: 101563 Right: 105467 Middle : 105468
l=103516   r=105467   l=103516   r=104490   Step: 11 Your random guess
between Left: 103516 Right: 104490 Middle : 104491
l=104004   r=104490   l=104248   r=104490   l=104370   r=104490
    l=104431   r=104490   l=104431   r=104459   Step: 16 Your random
guess between Left: 104431 Right: 104459 Middle : 104460
l=104446   r=104459   l=104446   r=104451   Step: 18 Your random guess
between Left: 104446 Right: 104451 Middle : 104452
l=104449   r=104451   l=104451   r=104451   l:1   r:1000000   l=1
    r=499999   Step: 2 Your random guess between Left: 1 Right: 499999
Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000

l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=1   r=62499   Step: 5 Your random guess between Left: 1 Right: 62499
Middle : 62500
l=1   r=31249   Step: 6 Your random guess between Left: 1 Right: 31249
Middle : 31250
l=15626   r=31249   l=15626   r=23436   Step: 8 Your random guess
between Left: 15626 Right: 23436 Middle : 23437
l=15626   r=19530   Step: 9 Your random guess between Left: 15626 Right:
19530 Middle : 19531
l=17579   r=19530   l=18555   r=19530   l=19043   r=19530
      l=19287   r=19530   l=19287   r=19407   Step: 14 Your random
guess between Left: 19287 Right: 19407 Middle : 19408
l=19348   r=19407   l=19378   r=19407   l=19393   r=19407
      l=19393   r=19399   Step: 18 Your random guess between Left: 19393
Right: 19399 Middle : 19400
l=19397   r=19399   l:1   r:1000000   l=1   r=499999   Step: 2 Your
random guess between Left: 1 Right: 499999 Middle : 500000
l=250001   r=499999   l=250001   r=374999   Step: 4 Your random guess
between Left: 250001 Right: 374999 Middle : 375000
l=312501   r=374999   l=343751   r=374999   l=343751   r=359374   Step:
7 Your random guess between Left: 343751 Right: 359374 Middle : 359375
l=343751   r=351561   Step: 8 Your random guess between Left: 343751 Right:
351561 Middle : 351562
l=343751   r=347655   Step: 9 Your random guess between Left: 343751 Right:
347655 Middle : 347656
l=345704   r=347655   l=345704   r=346678   Step: 11 Your random guess
between Left: 345704 Right: 346678 Middle : 346679
l=345704   r=346190   Step: 12 Your random guess between Left: 345704
Right: 346190 Middle : 346191
l=345948   r=346190   l=346070   r=346190   l=346070   r=346129   Step:
15 Your random guess between Left: 346070 Right: 346129 Middle : 346130
l=346070   r=346098   Step: 16 Your random guess between Left: 346070
Right: 346098 Middle : 346099
l=346085   r=346098   l=346092   r=346098   l=346092   r=346094   Step:
19 Your random guess between Left: 346092 Right: 346094 Middle : 346095
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=250001   r=499999   l=375001   r=499999   l=375001   r=437499   Step:
5 Your random guess between Left: 375001 Right: 437499 Middle : 437500
l=375001   r=406249   Step: 6 Your random guess between Left: 375001 Right:
406249 Middle : 406250
l=375001   r=390624   Step: 7 Your random guess between Left: 375001 Right:
390624 Middle : 390625
l=375001   r=382811   Step: 8 Your random guess between Left: 375001 Right:
382811 Middle : 382812
l=378907   r=382811   l=380860   r=382811   l=381836   r=382811
      l=381836   r=382322   Step: 12 Your random guess between Left: 381836
Right: 382322 Middle : 382323
l=381836   r=382078   Step: 13 Your random guess between Left: 381836
Right: 382078 Middle : 382079
l=381836   r=381956   Step: 14 Your random guess between Left: 381836
Right: 381956 Middle : 381957
l=381836   r=381895   Step: 15 Your random guess between Left: 381836
Right: 381895 Middle : 381896

l=381866   r=381895   l=381866   r=381879   Step: 17 Your random guess
between Left: 381866 Right: 381879 Middle : 381880
l=381873   r=381879   l=381873   r=381875   Step: 19 Your random guess
between Left: 381873 Right: 381875 Middle : 381876
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=1   r=62499   Step: 5 Your random guess between Left: 1 Right: 62499
Middle : 62500
l=31251   r=62499   l=31251   r=46874   Step: 7 Your random guess
between Left: 31251 Right: 46874 Middle : 46875
l=31251   r=39061   Step: 8 Your random guess between Left: 31251 Right:
39061 Middle : 39062
l=31251   r=35155   Step: 9 Your random guess between Left: 31251 Right:
35155 Middle : 35156
l=31251   r=33202   Step: 10 Your random guess between Left: 31251 Right:
33202 Middle : 33203
l=31251   r=32225   Step: 11 Your random guess between Left: 31251 Right:
32225 Middle : 32226
l=31251   r=31737   Step: 12 Your random guess between Left: 31251 Right:
31737 Middle : 31738
l=31251   r=31493   Step: 13 Your random guess between Left: 31251 Right:
31493 Middle : 31494
l=31251   r=31371   Step: 14 Your random guess between Left: 31251 Right:
31371 Middle : 31372
l=31312   r=31371   l=31312   r=31340   Step: 16 Your random guess
between Left: 31312 Right: 31340 Middle : 31341
l=31327   r=31340   l=31327   r=31332   Step: 18 Your random guess
between Left: 31327 Right: 31332 Middle : 31333
l=31330   r=31332   l=31332   r=31332   l:1   r:1000000   l=1
     r=499999   Step: 2 Your random guess between Left: 1 Right: 499999
Middle : 500000
l=250001   r=499999   l=375001   r=499999   l=375001   r=437499   Step:
5 Your random guess between Left: 375001 Right: 437499 Middle : 437500
l=406251   r=437499   l=421876   r=437499   l=429688   r=437499
     l=433594   r=437499   l=433594   r=435545   Step: 10 Your random
guess between Left: 433594 Right: 435545 Middle : 435546
l=433594   r=434568   Step: 11 Your random guess between Left: 433594
Right: 434568 Middle : 434569
l=433594   r=434080   Step: 12 Your random guess between Left: 433594
Right: 434080 Middle : 434081
l=433594   r=433836   Step: 13 Your random guess between Left: 433594
Right: 433836 Middle : 433837
l=433594   r=433714   Step: 14 Your random guess between Left: 433594
Right: 433714 Middle : 433715
l=433594   r=433653   Step: 15 Your random guess between Left: 433594
Right: 433653 Middle : 433654
l=433594   r=433622   Step: 16 Your random guess between Left: 433594
Right: 433622 Middle : 433623
l=433594   r=433607   Step: 17 Your random guess between Left: 433594
Right: 433607 Middle : 433608
l=433594   r=433599   Step: 18 Your random guess between Left: 433594
Right: 433599 Middle : 433600

l=433594   r=433595   Step: 19 Your random guess between Left: 433594
Right: 433595 Middle : 433596
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=1   r=62499   Step: 5 Your random guess between Left: 1 Right: 62499
Middle : 62500
l=31251   r=62499   l=31251   r=46874   Step: 7 Your random guess
between Left: 31251 Right: 46874 Middle : 46875
l=31251   r=39061   Step: 8 Your random guess between Left: 31251 Right:
39061 Middle : 39062
l=31251   r=35155   Step: 9 Your random guess between Left: 31251 Right:
35155 Middle : 35156
l=33204   r=35155   l=33204   r=34178   Step: 11 Your random guess
between Left: 33204 Right: 34178 Middle : 34179
l=33204   r=33690   Step: 12 Your random guess between Left: 33204 Right:
33690 Middle : 33691
l=33204   r=33446   Step: 13 Your random guess between Left: 33204 Right:
33446 Middle : 33447
l=33326   r=33446   l=33326   r=33385   Step: 15 Your random guess
between Left: 33326 Right: 33385 Middle : 33386
l=33326   r=33354   Step: 16 Your random guess between Left: 33326 Right:
33354 Middle : 33355
l=33326   r=33339   Step: 17 Your random guess between Left: 33326 Right:
33339 Middle : 33340
l=33326   r=33331   Step: 18 Your random guess between Left: 33326 Right:
33331 Middle : 33332
l=33329   r=33331   l:1   r:1000000   l=500001   r=1000000   l=500001
     r=749999   Step: 3 Your random guess between Left: 500001 Right:
749999 Middle : 750000
l=500001   r=624999   Step: 4 Your random guess between Left: 500001 Right:
624999 Middle : 625000
l=562501   r=624999   l=562501   r=593749   Step: 6 Your random guess
between Left: 562501 Right: 593749 Middle : 593750
l=562501   r=578124   Step: 7 Your random guess between Left: 562501 Right:
578124 Middle : 578125
l=562501   r=570311   Step: 8 Your random guess between Left: 562501 Right:
570311 Middle : 570312
l=562501   r=566405   Step: 9 Your random guess between Left: 562501 Right:
566405 Middle : 566406
l=564454   r=566405   l=565430   r=566405   l=565430   r=565916   Step:
12 Your random guess between Left: 565430 Right: 565916 Middle : 565917
l=565674   r=565916   l=565674   r=565794   Step: 14 Your random guess
between Left: 565674 Right: 565794 Middle : 565795
l=565674   r=565733   Step: 15 Your random guess between Left: 565674
Right: 565733 Middle : 565734
l=565674   r=565702   Step: 16 Your random guess between Left: 565674
Right: 565702 Middle : 565703
l=565689   r=565702   l=565689   r=565694   Step: 18 Your random guess
between Left: 565689 Right: 565694 Middle : 565695
l=565692   r=565694   l=565694   r=565694   l:1   r:1000000   l=1
     r=499999   Step: 2 Your random guess between Left: 1 Right: 499999
Middle : 500000

l=250001   r=499999   l=250001   r=374999   Step: 4 Your random guess
between Left: 250001 Right: 374999 Middle : 375000
l=250001   r=312499   Step: 5 Your random guess between Left: 250001 Right:
312499 Middle : 312500
l=281251   r=312499   l=281251   r=296874   Step: 7 Your random guess
between Left: 281251 Right: 296874 Middle : 296875
l=289063   r=296874   l=292969   r=296874   l=292969   r=294920   Step:
10 Your random guess between Left: 292969 Right: 294920 Middle : 294921
l=292969   r=293943   Step: 11 Your random guess between Left: 292969
Right: 293943 Middle : 293944
l=292969   r=293455   Step: 12 Your random guess between Left: 292969
Right: 293455 Middle : 293456
l=292969   r=293211   Step: 13 Your random guess between Left: 292969
Right: 293211 Middle : 293212
l=292969   r=293089   Step: 14 Your random guess between Left: 292969
Right: 293089 Middle : 293090
l=292969   r=293028   Step: 15 Your random guess between Left: 292969
Right: 293028 Middle : 293029
l=292969   r=292997   Step: 16 Your random guess between Left: 292969
Right: 292997 Middle : 292998
l=292984   r=292997   l=292991   r=292997   l=292995   r=292997
     l=292997   r=292997   l:1   r:1000000   l=1   r=499999   Step: 2
Your random guess between Left: 1 Right: 499999 Middle : 500000
l=1   r=249999   Step: 3 Your random guess between Left: 1 Right: 249999
Middle : 250000
l=1   r=124999   Step: 4 Your random guess between Left: 1 Right: 124999
Middle : 125000
l=1   r=62499   Step: 5 Your random guess between Left: 1 Right: 62499
Middle : 62500
l=31251   r=62499   l=46876   r=62499   l=54688   r=62499
     l=54688   r=58592   Step: 9 Your random guess between Left: 54688
Right: 58592 Middle : 58593
l=54688   r=56639   Step: 10 Your random guess between Left: 54688 Right:
56639 Middle : 56640
l=55664   r=56639   l=56152   r=56639   l=56152   r=56394   Step:
13 Your random guess between Left: 56152 Right: 56394 Middle : 56395
l=56274   r=56394   l=56274   r=56333   Step: 15 Your random guess
between Left: 56274 Right: 56333 Middle : 56334
l=56304   r=56333   l=56304   r=56317   Step: 17 Your random guess
between Left: 56304 Right: 56317 Middle : 56318
l=56304   r=56309   Step: 18 Your random guess between Left: 56304 Right:
56309 Middle : 56310
l=56307   r=56309   l=56307   r=56307   Step: 20 Your random guess
between Left: 56307 Right: 56307 Middle : 56308
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=250001   r=499999   l=250001   r=374999   Step: 4 Your random guess
between Left: 250001 Right: 374999 Middle : 375000
l=250001   r=312499   Step: 5 Your random guess between Left: 250001 Right:
312499 Middle : 312500
l=281251   r=312499   l=281251   r=296874   Step: 7 Your random guess
between Left: 281251 Right: 296874 Middle : 296875
l=281251   r=289061   Step: 8 Your random guess between Left: 281251 Right:
289061 Middle : 289062
l=285157   r=289061   l=287110   r=289061   l=287110   r=288084   Step:
11 Your random guess between Left: 287110 Right: 288084 Middle : 288085

l=287598   r=288084   l=287842   r=288084   l=287964   r=288084
    l=287964   r=288023   Step: 15 Your random guess between Left: 287964
Right: 288023 Middle : 288024
l=287994   r=288023   l=287994   r=288007   Step: 17 Your random guess
between Left: 287994 Right: 288007 Middle : 288008
l=288001   r=288007   l:1   r:1000000   l=1   r=499999   Step: 2 Your
random guess between Left: 1 Right: 499999 Middle : 500000
l=250001   r=499999   l=250001   r=374999   Step: 4 Your random guess
between Left: 250001 Right: 374999 Middle : 375000
l=250001   r=312499   Step: 5 Your random guess between Left: 250001 Right:
312499 Middle : 312500
l=281251   r=312499   l=296876   r=312499   l=296876   r=304686   Step:
8 Your random guess between Left: 296876 Right: 304686 Middle : 304687
l=296876   r=300780   Step: 9 Your random guess between Left: 296876 Right:
300780 Middle : 300781
l=298829   r=300780   l=298829   r=299803   Step: 11 Your random guess
between Left: 298829 Right: 299803 Middle : 299804
l=298829   r=299315   Step: 12 Your random guess between Left: 298829
Right: 299315 Middle : 299316
l=299073   r=299315   l=299195   r=299315   l=299256   r=299315
    l=299286   r=299315   l=299301   r=299315   l=299309   r=299315
    l=299309   r=299311   Step: 19 Your random guess between Left: 299309
Right: 299311 Middle : 299312
l=299309   r=299309   Step: 20 Your random guess between Left: 299309
Right: 299309 Middle : 299310
l:1   r:1000000   l=1   r=499999   Step: 2 Your random guess between Left: 1
Right: 499999 Middle : 500000
l=250001   r=499999   l=375001   r=499999   l=437501   r=499999
    l=437501   r=468749   Step: 6 Your random guess between Left: 437501
Right: 468749 Middle : 468750
l=437501   r=453124   Step: 7 Your random guess between Left: 437501 Right:
453124 Middle : 453125
l=437501   r=445311   Step: 8 Your random guess between Left: 437501 Right:
445311 Middle : 445312
l=441407   r=445311   l=443360   r=445311   l=444336   r=445311
    l=444824   r=445311   l=444824   r=445066   Step: 13 Your random
guess between Left: 444824 Right: 445066 Middle : 445067
l=444946   r=445066   l=444946   r=445005   Step: 15 Your random guess
between Left: 444946 Right: 445005 Middle : 445006
l=444976   r=445005   For numbers between 1 to 1000000 (random numbers)
the min guess is 10 max guess is 20
DONE

Q.2 Truthtable.

```java
package cs501_hw;
import java.util.Scanner;

public class TruthTable {
    public static void main (String args[]){
        printTruthTable(1);
        printTruthTable(2);
        printTruthTable(3);
        System.out.print("How many inputs do you want?");
        Scanner scanner = new Scanner(System.in);
        int k = scanner.nextInt();
        printTruthTable(k);
    }

    private static void printTruthTable(int n) {
        System.out.println("-----------Truth table of " +
                "" + n + " inputs function --------------");
        int rows = (int) Math.pow(2, n);

        if (n <= 3) {
            for (int i = 0; i < rows; i++) {
                for (int j = n - 1; j >= 0; j--) {
                    System.out.print((i / (int) Math.pow(2, j)) % 2 + " ");
                }
                System.out.println();
```

```
            }
        }
        System.out.println("For " + n + " inputs, table size is  " + rows);
        System.out.println();
    }
}
```

```
------------Truth table of 1 inputs function --------------
0
1
For 1 inputs, table size is  2

------------Truth table of 2 inputs function --------------
0 0
0 1
1 0
1 1
For 2 inputs, table size is  4

------------Truth table of 3 inputs function --------------
0 0 0
0 0 1
0 1 0
0 1 1
1 0 0
1 0 1
1 1 0
1 1 1
For 3 inputs, table size is  8

How many inputs do you want?14
------------Truth table of 14 inputs function --------------
For 14 inputs, table size is  16384
```

Java - cs501_hw/src/cs501_hw/TruthTable.java - Eclipse

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Quick Access   Java EE   Java

Package ...

cs501_hw
  src
    cs501_hw
      BarAttender.
      IntUtil.java
      RandomInt.j
      TruthTable.j
    JRE System Library [
  org.eclipse.swt.example
  org.eclipse.swt.example
  org.eclipse.swt.example
  org.eclipse.swt.example
  org.eclipse.swt.example
  org.eclipse.swt.example

IntUtil.java   RandomInt.java   BarAttender.java   TruthTable.java

```
1 package cs501_hw;
```

Problems   @ Javadoc   Declaration   Console   Debug

cs501_hw
  TruthTable
    main(
    printT

```
<terminated> TruthTable [Java Application] C:\Program Files\Java\jre1.8.0_73\bin\javaw.exe (Jun 2, 2016, 12:43:58 PM)
------------Truth table of 1 inputs function --------------
0
1
For 1 inputs, table size is  2

------------Truth table of 2 inputs function --------------
0 0
0 1
1 0
1 1
For 2 inputs, table size is  4

------------Truth table of 3 inputs function --------------
0 0 0
0 0 1
0 1 0
0 1 1
1 0 0
1 0 1
1 1 0
1 1 1
For 3 inputs, table size is  8

How many inputs do you want?14
------------Truth table of 14 inputs function --------------
For 14 inputs, table size is  16384
```

I'm Cortana. Ask me anything.

12:44 PM
02-Jun-16