

## Practice 2

1. What is the sum of all the even numbers from 1 to 1000? What is the sum of all the odd numbers from 1 to 1000?
2. A book is printed with 9 different colors of ink: red, blue, yellow, green, purple, pink, brown, black and orange. The first page is red, the second blue, and so on, until all the colors are used, then the printer starts over with red and continues in this way until all the pages are printed. What color is page 274?
3. Convert from one base to another:
  - a.  $32012_4 = ?_2$ , b.  $DEF_{16} = ?_4$ ,  $423_5 = ?_7$ .
4. How many of the digits  $1, \dots, 6$  are the 1st digit base 7 of a cube?
5. What is the first digit base 8 of  $5^{937}$ ? What are the first 3 digits base 2 of  $5^{937}$ ?