(a) Write a function to calculate the factorial value of any integer entered through the keyboard.

(b) Write a function **power (a, b)**, to calculate the value of **a** raised to **b**.

(c) Write a general-purpose function to convert any given year into its Roman equivalent. Use these Roman equivalents for decimal numbers: 1 – I, 5 – V, 10 – X, 50 – L, 100 – C, 500 – D, 1000 – M.

Example:

Roman equivalent of 1988 is mdcccclxxxviii.
Roman equivalent of 1525 is mdxxv.

(d) Any year is entered through the keyboard. Write a function to determine whether the year is a leap year or not.

(e) A positive integer is entered through the keyboard. Write a function to obtain the prime factors of this number.

For example, prime factors of 24 are 2, 2, 2 and 3, whereas prime factors of 35 are 5 and 7.