Problem Set 08 - Ruby
Part IV
(Mandatory)

Write the following Ruby programs in separate files such that the name of each file is in the format

`main8`n`.rb`

where n is the number of the program in the list below. You cannot use blocks.

Programs:

1. Write a program that defines a number function that takes four number parameters and returns the result of

$$ax^2 + bx + c$$

   where a, b, c, and x are the values of the parameters in order. Afterward, it prompts the user to enter four numbers and then displays the result of a caller of the function written with the inputs as the arguments.

2. Write a program that defines a string function that takes a nonnegative integer parameter and returns a line of a length equal to the parameter of asterisks. Afterward, it displays a right triangle of asterisks with a height of 5.

3. Write a program that defines a Boolean function that takes an integer parameter and returns true if the parameter is prime; otherwise, it returns false. Afterward, it prompts the user to enter an integer until the input is prime, and displays the result.

4. Write a program that defines a string function that takes a string array and returns the concatenation of the elements of the array parameter. Afterward, initialize an array with eight five-letter words and then display the outcome of a caller of the function with the array as its argument.