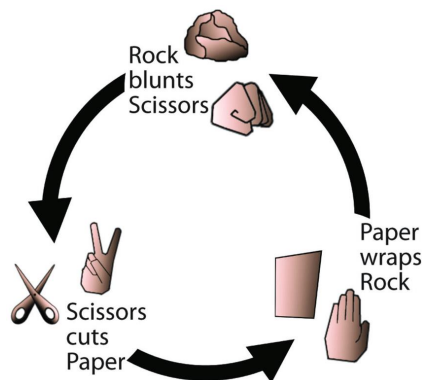
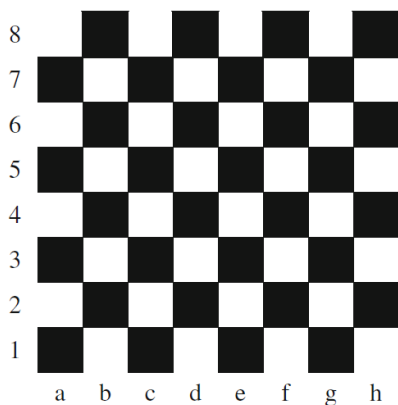


Question Set 2: Conditionals

Note: Concentrate on Naming Conventions, Readability and Reusability of Functions

1. Program to Check if a Number is Positive, Negative or 0
2. Check if two integers are equal or not
3. Check if two floating point numbers are equal or not. (Consider a delta/epsilon of .05 by default)
4. Program to Check if a Number is Odd or Even
5. Program to Check Leap Year
6. Program to accept the height of a person in centimetre and categorize the person according to their height (tall, short or medium – assume threshold values)
7. Program to Find the Largest Among Three Numbers
8. Program to Find the Smallest Among Three Numbers
9. Find the largest among four numbers. (Think about more numbers being added)
10. Given three numbers, find the two numbers that are closer to each other.
11. Given three numbers, find the two numbers that are farther from each other.
12. Program to Sort three integers.
13. Program to accept a coordinate point in an XY coordinate system and determine in which quadrant the coordinate point lies
14. Given a character, find if it is a vowel or a consonant.
15. Given a character, find if it is a digit or not.
16. Given a character, find if it is an Upper-Case Character or not.
17. Given a character, find if it is a Lower-Case Character or not.
18. Given the number of sides of a shape (3 sides up to 10 sides), return the name of that shape.
19. Output number of days in a month given the month name. Assume 28 days in February.
20. Print the day of week (Monday or Tuesday,...) given the day of month (1 to 31). Assume the month starts on a Monday.
21. Read the length of sides of a triangle and find its type (Equilateral, isosceles and scalene)
22. Program to convert grade-points to letter grades. (A=>90, B=>80, C=>60, D=>50, F<50)
23. Assume a chessboard with 8 rows numbered 1 to 8 and with 8 columns named a to h and the left lower square represented using 1, a being black. What colour is that square, given the row as int (1-8) and column as char (a-h) in that chess board. Given 5, 'a' the color is black. 3, 'd' the color is white.



24. Program to calculate roots of Quadratic Equation given a, b and c.
25. Given a number N, write a program that prints Fizz if the number is a multiple of 3, Buzz if the number is a multiple of 5, FizzBuzz if the number is a multiple of 3 and 5, otherwise print the number itself.
26. **Write a Menu-Driven Program to obtain two numbers as input and ask for an operation to be performed such as addition, subtraction, multiplication, division or modulo division. Perform the selected operation and show the result.**
27. **Write a program for Rock, Paper and Scissors Game. Just for a single round, Computer vs. User and declare the winner with proper reason.**

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$