Write program for all.

1. A character is a vowel or consonant
2. A character is an alphabet or not
3. Ascii values of a character
4. Uppercase, Lowercase or special character
5. A number is positive or negative
6. A number is even or odd
7. Swap two numbers without third variable
8. Area of a circle
9. LCM of two numbers
10. GCD of two numbers
11. Greatest of two numbers
12. Greatest of three numbers
13. Number of digits in an integer
14. Sum of digits of a number
15. Sum of N natural numbers
16. Sum of numbers in a given range
17. Reverse a given number
18. Factorial of a number
19. Fibonacci series up ton
20. Leap year or not
21. Prime number or not
22. Palindrome or not
23. Armstrong number or not
24. Strong number or not
25. Perfect number or not
26. Friendly pair or not (amicable or not)
27. Automorphic number or not
28. Harshad number or not
29. Abundant number or not
30. Power of a number
31. Factors of a number
32. Add two fractions
33. Sum of positive square elements in an array
34. Second smallest element in an array
35. Sorting the elements of an array
36. Reversing an array
37. Longest palindrome in an array
38. Count distinct elements of an array
39. Non-repeating elements of an array
40. Repeating elements in an array
41. Remove duplicate elements in an array
42. Minimum scalar product of two vectors
43. Pascals triangle
44. Heart star pattern

HARD

1.Right arrow Star pattern

2.Left Arrow Star pattern

3.Half Diamond pattern

4.Full Diamond pattern

5.Plus Star Pattern

6.X-Star pattern

EASY

6.Mirrored Rhombus Star

7.Hollow Mirrored Rhombus Star

8.Hollow Mirrored Right Triangle star

9.Hollow Inverted Mirrored Right Triangle star

10.Inverted Mirrored Right Triangle star

11.Hollow Square Star with Diagonal

MEDIUM

12.Square Star

13.Hollow Square Star

14.Rhombus Star pattern

15.hollow Rhombus

16.Right Triangle star

17.hollow Right Triangle star

18.Inverted Right Triangle star

19.Mirrored Right Triangle star