

- 1) Draw four separate flowchart of a program, which prints the following sequences of values in loops:
 - a. 24, 18, 12, 6, 0, -6
 - b. -10, -5, 0, 5, 10, 15, 20
 - c. 18, 27, 36, 45, 54, 63
 - d. 18, -27, 36, -45, 54, -63
- 2) Draw flowchart of a program, which adds all numbers that are multiples of both 7 and 9 up to 600.
- 3) Draw flowchart of a program, which adds all numbers that are multiples of either 7 or 9 or both up to 600. Ensure that numbers like 63 are added only once in the sum.
- 4) Draw flowchart of a program, which adds all numbers that are multiples of either 7 or 9 but not both, up to 600.
- 5) Draw the flowchart of a program that asks the user for 20 numbers and prints if those numbers are odd or even.
- 6) Draw the flowchart of a program that asks the user for a *quantity* , then takes that many numbers and prints if those numbers are odd or even.
- 7) Draw the flowchart of a program that asks the user for a *quantity* , then takes that many numbers and prints the maximum, minimum and average of those numbers.
- 8) Draw the flowchart of a program that takes a number from user and prints the divisors of that number and then how many divisors there were. If user gives 6, your program should print, 1, 2, 3, 6, total 4 divisors.. If user gives 121, your program should print 1,11,121, total 3 divisors.
- 9) An integer number is said to be a perfect number if its factors, including 1 but not the number itself, sum to the number. For example, 6 is a perfect number because factors of 6 are 1, 2, 3, 6 and if we add all factors except itself, $6 = 1 + 2 + 3$. Draw flowchart of a program, which takes a number and tells if it is a perfect number or not.
- 10) Draw flowchart of a program that asks user for one number and tells if it is a prime number or not. Hint: use the divisor count from task 8. If a number has only two divisors, (1 and itself), then it is prime. If it is divisible by more numbers, then it is not a prime.
- 11) Draw flowchart of a program that prints all prime numbers between 40 and 50.