Problem Pool

- Get quotient of division of two numbers
- Input four numbers and generate the sum of these
- Sum and average of marks of five students taken from the user
- Percentage of total marks of four students.
- Check if a number is greater than 80, say “good”, if not say, “Try again”
- Check whether a number is divisible by another user-given number or not
- Sum of odd numbers from 10 user-given numbers.
- Sum of even number from n user-given numbers. Where n is also user-input.
- Show first n terms of Fibonacci series
- Converting temperature from Fahrenheit to Celsius [Formula: C = (f-32) * (5/9)]
- Calculating pay for an employee, given the hours worked and rate per hour.
- Determine the status of a student (pass or fail) given his/her marks in a subject (passing marks = 50)
- Calculate pay of an employee based on the hours worked. The input includes the employee total hours worked this week and their hourly pay rate. The employee is to be paid their basic wage for the first 40 hours and time-and-a-half (i.e. 50% more) for all hours above 40 (overtime pay). Output the regular pay. Overtime pay and total pay for the week on the screen. If the employee worked 40 hours or less, don’t output any information about overtime pay.
- Take two number from the user and determine the largest number
- Take three number from the user and determine the largest number.
    - First approach: using nested if-else
    - Second approach: using compound conditions
    - Third approach: call the first number the largest. Revise the estimate of the largest number after comparing it with the rest of the numbers one by one

- Take four numbers from the user and determine the largest using the most suitable approach from a, b and c given above.
- Determine the grade of a student from the marks obtained (90-100, A; 80-29, B; 70-79, C; 60-69, D; <60, F)
- Input a number and determine whether the number is even or odd.
- Calculate the difference between two times given in 24-hour (hh: mm) format.
- Input 3 numbers. Determine whether: all are same, all are different or exactly two are same.
- Finding the sum of 10 numbers taken from the user.
- Finding the sum of n numbers taken from the user. Where n is taken from the user as well.
- Finding the average of n number from the user, where n is user-given value.
- Displaying positive integers in the range from 1 to n, where n is taken from the user.
- Calculate the factorial of a positive integer entered by the user.
- Take two positive integers a and n from the user. Calculate and display an. Assume that the power operator is not available.
- Take three number from the user and determine the largest number. Do it using a loop
- Take n number from the user and determine the largest number entered by the user, where n is taken from the user as well.
- Take n numbers from the user and determine both the smallest and the largest number entered by the user, where n is taken from the user as well.
- Take n numbers from the user and determine that how many positive and negative integers were entered by the user.
- Take a positive integer n from the user. Display all the divisors of n.
- Input a positive integer from the user and determine where the number is a perfect number or not. (a perfect number is a positive integer that is equal to the sum of its proper positive divisors, that is, the sum of its positive divisors excluding the number itself.)
- Input a positive integer from the user and determine whether is a prime number or not.
- Take a positive integer from the user. Displaying an error message and prompting for input again and again if the user enters invalid input (negative or zero)
- Write an algorithm to determine the sum of a variable number of positive integers

taken from the user. The algorithm should keep prompting the user for more input until the user enters the sentinel value -999.

- Display negative of a number
- Find absolute of an input. Assume that the absolute operator is not available.
- Input 2 number and find if both are even, both are odd, or 1 even 1 odd.
- Input 3 numbers and find how many are odd.
- Input 3 numbers and print the 2 largest numbers/
- Input a number and find if it is 2-digit positive integer or not.
- Input a 2-digit number and find the absolute difference between its digits
- Input an integer (up to 4 digits) and store its reverse in another variable. Then display both integers.
- Interchange two numbers
- Interchange two numbers without using an extra variable.
- Conversion of microseconds to weeks, days, hours, minutes, seconds, and remaining microseconds.
- Multiply a number with the sum of its digits.
- Input 2 numbers and print YES if 1st is divisible by 2nd
- Input 2 numbers and print YES if 2nd is divisible by 1st
- Input 2 numbers and print YES if one number is divisible by the other.
- Input numbers till user inputs a zero and display their sum.
- Input numbers till user inputs a zero and at the end display last non-zero number
- Input numbers till user inputs a zero and display the largest number
- Input numbers till user inputs a zero, and display the smallest number
    - Check if it works for all positive inputs
    - Now check algorithm # 55 (largest number) if it works for all negative inputs
    - If you find any problem, then solve it.
- Input 10 numbers, and display the smallest number
- Input 10 numbers, and display count of even and odd numbers, separately, at the end

- Input SLimit and Elimit from the user, and display even numbers between range, with both limit, included.
    - Give an efficient solution that does not check divisibility of each number in the given range
- Input SLimit and ELimit from the user and display only those numbers between range which are divisible by 2 or 3 or 5, with both limits included
- Input SLimit and ELimit from user and display only those numbers between range which divisible by 2 and 3 and 5, with both limits included.
- Input 2 numbers and find their GCD
- Input 3 numbers and find their GCD
- Input 2 numbers and display their LCM.
- Input a number and display that how many digits it has.
- Input a base-9 number, digit by digit, then convert it into decimal number. Digits of the input will be entered in order from least significant to most significant. Since valid digits are 0 to 8, hence any other input will be used as the sentinel value.
- Input a base-9 number, digit by digit, then convert it into decimal number. Digits of the input will be entered in order from most significant to least significant. Since valid digits are 0 to 8, hence any other input will be used as sentinel value.
- Input a number and display its equivalent in base-9 (one digit per line, starting from the least significant)
- Input number and store its equivalent in base-9 as a single numeric value and display it.
- Input a base-9 number, digit by digit, then convert it into binary number a single numeric value. Digits of the input will be entered in order from least significant to most significant. Since valid digits are 0 to 8, hence any other input will be used as sentinel value
- Input a decimal integer and display its hexadecimal equivalent digit-by-digit. The hexadecimal output should be in order from least significant to most significant
- Three numbers denoted by the variables A, B and C are supplied as input data. Print these three number in ascending order.
- Write an if-else statement that outputs the word “Warning” provided that either the value of the variable temperature is greater than or equal to 100, or the value of the variable pressure is greater than or equal to 200, or both. Otherwise, the if-else statement outputs the work “OK”.
- Input two positive integers and a and b from the user. Determine the integer of a/b.

Assume that the division operator is not available.

- Input two positive integers a and b from the user. Determine the remainder of a/b. Assume that the division and modulus operators are not available.