**Pseudocode**

**Q. Find the maximum number in any of three variables.**

START

DECLARE num1, num2, num3

INPUT num1

INPUT num2

INPUT num3

DECLARE maxNum

IF num1 > num2

THEN

SET maxNum = num1

ELSE

SET maxNum = num2

END

IF num3 > maxNum THEN

SET maxNum = num3

END IF

PRINT maxNum

END

**Q. Take three variables as input and add them without using the + operator.**

DECLARE num1, num2, num3

INPUT num1

INPUT num2

INPUT num3

DECLARE sum

sum = -(-num1 - num2)

sum = -(-sum - num3)

PRINT sum

END

**Q. Create a small calculator which only does ‘+’ or ‘-‘Operations.**

START

DECLARE num1, num2, operator, result

INPUT num1

INPUT operator

INPUT num2

IF operator = '+' THEN

result = num1 + num2

ELSE IF operator = '-' THEN

result = num1 - num2

ELSE

PRINT "Invalid operator"

END IF

PRINT result

END

**Algorithm**

**Q.** **Implement an algorithm for determining if an Nth is a divisor of an n Number If so, determine if it’s an even number or odd number as well.**

* Start
* Ask the user for two numbers. Let's call them num and Nth.
* Divide num by Nth.
* If there's no remainder, then Nth is a divisor of num.
* If there's a remainder, then Nth is not a divisor of num.
* If Nth can be divided by 2 without a remainder, then Nth is an even number.
* If dividing Nth by 2 leaves a remainder, then Nth is an odd number.
* If Nth is a divisor of n and Nth can be divided by 2 without a remainder, print "Nth is a divisor of num and it is an even/odd number"
* If Nth is not a divisor of n and if dividing Nth by 2 leaves a remainder, print "Nth is not a divisor of num".
* End

**Q. Implement an algorithm where the user enters a number, and an appropriate month is displayed.**

* Start
* Ask user for number
* If number is 1, display “January”.
* If number is 2, display “February”.
* If number is 3, display “Wednesday”.
* If number is 4, display “April”.
* If number is 5, display “May”.
* If number is 6, display “June”.
* If number is 7, display “July”.
* If number is 8, display “August”.
* If number is 9, display “September”.
* If number is 10, display “October”.
* If number is 11, display “November”.
* If number is 12, display “December”.
* **If the Number is Not Between 1 and 12**, display "Invalid number"
* **End**

**Q. Implement an algorithm for making a simple calculator with all the operators (+,-,\*,/,%).**

* Start
* Declare a variable named “result” to store the result of calculations.
* Ask the user to enter a operator. The operator can be: +, -, \*, /, or %.
* Ask the user to enter two numbers (num1,num2)
* If operator is + then add two numbers (num1 + num2)
* If operator is – then subtract second number from first number (num2 – num1)
* If operator is \* then multiply the two numbers (num1 \* num2)
* If operator is / check if the second number is not zero.
* If it's not zero, then divide the first number by the second number (num1/num2)
* If it's zero, display an error message that division by zero is not allowed and end the program.
* If operator is % check if the second number is not zero.
* If it's not zero, then find the remainder when the first number is divided by the second number. (num1 / num2)
* If it's zero, display an error message that modulus by zero is not allowed and end the program
* If operator is other than mentioned operators +, -, \*, /, % then display an error message.
* Display the value stored in result.
* End