

Problem # 2:

- 1) Declare num
- 2) Print "Enter your number:"
- 3) Input num
- 4) Print $\text{num} * (\text{num} + 1) / 2$

Problem # 3:

- 1) Declare num, count, sum
- 2) Print "Enter the number: "
- 3) Input num
- 4) count = 1
- 5) sum = 0

- 6) Repeat Until (count < num)
 - 6.1) If (num % count == 0)
 - 6.1.1) sum = sum + count
 - count = count + 1

- 7) If (sum == num)
 - 7.1) Print "This is a perfect number."Otherwise If
 - 7.1) Print "This is not a perfect number."

Problem # 4:

- 1) Declare num, copiedNum, remainder reverseNum
- 2) Print "Enter the number:"
- 3) Input num
- 4) copiedNum = num

5) Repeat Until (copiedNum>0)

5.1) remainder = copiedNum % 10

5.2) reverseNum = reverseNum * 10 + remainder

5.3) copiedNum = copiedNum/10

6) If (copiedNum == num)

6.1) Print "Palindrome"

Otherwise If

6.1) Print "Not a Palindrome"

Problem # 7:

1) Declare numerator,denominator

2) Input numerator,denominator

3) Repeat Until (a%b!=0)

3.1) remainder = numerator/denominator

3.2) numerator = denominator

3.3) denominator = remainder

4) If (denominator == 1)

4.1) Print "These numbers are co prime."

Problem # 8:

1) Declare terms, term1 , term2 , nextTerm, count

2) Print "Enter number of terms"

3) If (terms == 1)

Print 1

Otherwise If (terms == 2)

Print 3

- 4) term1 = 1
- 5) term2 = 2
- 6) sum = term1 + term2
- 7) count = 3
- 8) Repeat Until (count <= terms)
 - 8.1) nextTerm = term1 + term2
 - 8.2) sum = sum + nextTerm
 - 8.3) term1 = term2
 - 8.4) term2 = nextTerm
 - 8.5) count = count + 1
- 9) Print sum

Problem # 5:

- 1) Declare num, remainder , reverseNum
- 2) Print "Enter the number: "
- 3) Input num
- 4) If (num<0)
 - 4.1) num = num * -1
- 5) remainder = 0
- 6) Repeat Until (num>0)
 - 6.1) remainder = num%10
 - 6.2) reverseNum = reverseNum * 10 + remainder
 - 6.3) num = num//10
- 7) Repeat Until (reverseNum>0)x
 - 7.1) remainder = reverseNum%10
 - 7.2) Print remainder

7.3) reverseNum = reverseNum//10

Problem # 10:

1) Declare num1, num2 , max, count

2) Print "Enter first number:"

3) Input num1

4) Print "Enter second number:"

5) Input num2

6) If (num1>num2)

6.1) max = num1

Otherwise If (num2>num1)

6.1) max = num2

7) count = 0

8) Repeat Until (count != 1)

8.1) If (max%num1 ==0 AND max % num2 ==0)

8.1.1) count = 1

8.2) max = max + 1

9) Print max - 1

Problem # 6:

1) Declare num , remainder , binaryNum

2) Print "Enter a number"

3) Input num

4) remainder = 0

- 5) binaryNum = 0
- 6) Repeat Until (num>0)
 - 6.1) remainder = num%2
 - 6.2) binaryNum = binaryNum * 10 + remainder
 - 6.3) num = num/2
- 7) Print binaryNum

Problem # 9:

- 1) Declare num,max,min,count,average
- 2) Print "Enter the number: "
- 3) Input num
- 4) max = 0
- 5) min = num
- 6) count = 1
- 7) sum = num

- 8) Repeat Until (num != -99)
 - 8.1) Input num

 - 8.2) If (num>max)
 - 8.1.1) max = num
 - Otherwise If (num<min)
 - 8.1.1) min = num

 - 8.3) count = count + 1

 - 8.4) if (num != -99)
 - 8.4.1) sum = sum + num

9) If (sum != 99)

9.1) Print "Average = ", sum/count

Problem # 11:

1) Declare steps, count, x, y, distance

2) Print "Enter number of steps."

3) Input steps

4) count = 1

5) Repeat Until (count <= steps)

5.1) Print "Enter ", count, "step x,axis"

5.2) Input x

5.3) Print "Enter ", count, "step y,axis"

5.4) Input y

5.5) count = count + 1

6) distance = $(x*x) + (y*y)$

7) Print "Squared Distance ", distance