

What is the algorithm in the following pseudo code used for?

```
1 DECLARE CHARACTER c
2 DECLARE INTEGER num = 0
3 DO
4 READ c
5 IF c IS '0' THROUGH '9' THEN
6 num++
7 END IF
8 UNTIL c IS '\n'
9 PRINT num
10 END
```

☐ Word count

☐ Character count

☐ To find new line character

☒ Counting digits

Clear Response

What is the algorithm in the following pseudo code used for?

```
1 DECLARE CHARACTER c
2 DECLARE INTEGER num = 0
3 DO
4 READ c
5 IF c IS '0' THROUGH '9' THEN
6 num++
7 END IF
8 UNTIL c IS '\n'
9 PRINT num
10 END
```

- ☐ Word count
- ☐ Character count
- ☐ To find new line character
- ☒ Counting digits

[Clear Response](#)

Consider the following pseudocode:

What would be the output of the pseudocode if the input to the program was 15?

```
1 START
2 Integer TotalNum, NumBoys, NumGirls, BoysPercent
3 SET BoysPercent=10
4 GET NumBoys
5 SET TotalNum = (NumBoys*100)/BoysPercent
6 SET NumGirls = (TotalNum*(100-BoysPercent-1))/100
7 Print 'Total number of pupils: ', TotalNum
8 Print 'Number of girls: ', NumGirls
9 STOP
```

- ☐ Total number of pupils: 115
Number of girls: 133
- ☐ Total number of pupils: 150
Number of girls: 134
- ☐ Total number of pupils: 125
Number of girls: 137
- ☒ Total number of pupils: 150
Number of girls: 135

Clear Response

Your requirement is to find out the grades and specific amount of fees that need to be paid according to the grade they earned. It can be called anywhere multiple times. How will you do?

1 Implemented below set of pseudocode in
2 main program itself
3 Start
4 `main()`
5 Let marks = 94;
6 if marks >= 90 then
7 grade = 'A';
8 fees = 10000;
9 else if marks >= 80 and marks < 90 then
10
11 else if
12 Stop
13 One needs to write this set of code wherever
14 required

1 Implemented below set of pseudocode
2 in a routine(function).
3 Start
4 `def calculateGradeAndFees(int marks)`
5 if marks >= 90 then
6 grade = 'A';
7 fees = 10000;
8 /similarly many def statements for other

Your program needs to assign designations to an employee according to their seniority level and the years of service they did in an organization. How will you implement that?

☐ 1 Let the age of employee = 50
2 Let years of service = 10
3 if (age of employee > 40) and years of service
4 > 5) {
5 BAND = 'A';
6 else if (age of employee > 40) {
7 BAND = 'B'
8

☒ 1 Let the age of employee = 50
2 Let years of service = 10
3 if (age of employee > 40 and years of service
4 > 5) {
5 BAND = 'A';
6 else if (age of employee > 40 and years of service
7 > 2) {
8 BAND = 'B'
9

☐ 1 Let the age of employee = 50
2 Let years of service = 10
3 if (age of employee > 40) {
4 BAND = 'A'

Your program needs to assign designations to an employee according to their seniority level and the years of service they did in an organization. How will you implement that?

☐ 1 Let the age of employee = 50
2 Let years of service = 10
3 if (age of employee > 40) and years of service
4 > 5) {
5 BAND = 'A';
6 else if (age of employee > 40) {
7 BAND = 'B'
8

☒ 1 Let the age of employee = 50
2 Let years of service = 10
3 if (age of employee > 40 and years of service
4 > 5) {
5 BAND = 'A';
6 else if (age of employee > 40 and years of service
7 > 2) {
8 BAND = 'B'
9

☐ 1 Let the age of employee = 50
2 Let years of service = 10
3 if (age of employee > 40) {
4 BAND = 'A';

You are asked to write arithmetic routines and put everything in a single routine. Write sample snippet code for that

```
1 //A calculator routine containing arithmetic
2 //routines like +, - etc
3 def calculatorOperation(int num1, int num2,
4 char operation) {
5 switch(operation) {
6 case '+': result = num1 + num2;
7 break;
8 case '-': result = num1 - num2;
9 break;
10 //Rest of the operations
11 }
12 print('Result = ' + result)
13 }
14 //If user wants to perform addition, then
15 call calculatorOperation(10000, 5000, '+')
16 //must be passed and hence output will be
17 15000
```

```
1 //A calculator routine containing arithmetic
2 //routines like +, - etc
3 def calculatorOperation(int num1, int num2,
4 char operation) {
```

Question # 6

Which of the following options indicate the correct pseudocode that can be used to find if a given number is positive or negative using a logical operator?

```

9 ELSE
10 Print 'The number is a positive number'
11 END IF
12 END IF
13 STOP
    
```

☒ 1 START
 2 GET Num
 3 IF (Num>0) THEN
 4 Print 'The number is a positive number'
 5 ELSE
 6 Print 'The number is a negative number'
 7 END IF
 8 STOP

☐ 1 START
 2 Integer Num
 3 GET Num
 4 IF (Num==0) THEN
 5 Print 'The number is neither positive nor negative'
 6 ELSE
 7 IF NOT (Num>0) THEN
 8 Print 'The number is a positive number'
 9 ELSE
 10 Print 'The number is a negative number'

Consider the following pseudocode:

What would be the output when the given pseudocode is executed?

```
1 FUNCTION CalculateSimpleInterest(Integer P, Integer N, Integer R)
2     Integer SI
3     SET SI = (P*N*R)/100
4     Print 'Simple interest is: ', SI
5 END FUNCTION
6
7 PROGRAM START
8 CALL CalculateSimpleInterest(1000, 2, 5)
9 STOP
```

- ☒ Simple Interest is: 100
- ☐ Simple Interest is: 500
- ☐ Simple Interest is: 1000
- ☐ Simple Interest is: 50

[Clear Response](#)

Consider the following pseudocode:

What will be the output of this pseudocode if it is executed?

```
1 FUNCTION PayEmp(Integer workHrs, Integer sales) RETURNS Integer
2   Integer Pay, PayPerHr, SalesPay
3   SET PayPerHr = 5
4   IF sales < 10000 THEN
5     SET SalesPay = 150
6   ELSE IF sales < 50000 THEN
7     SET SalesPay = 750
8   ELSE
9     SET SalesPay = ((150*100)/10000)+0.5*sales/100
10  END IF
11  SET Pay = PayPerHr * workHrs + SalesPay
12  RETURN Pay
13 END FUNCTION
14
15 PROGRAM START
16   Integer Pay
17   SET Pay = CALL PayEmp(20, 60000)
18   Print 'You have to pay: Rs. ', Pay
19 STOP
```

☐ You have to pay: Rs. 4600

☐ You have to pay: Rs. 6100

☐ You have to pay: Rs. 1000

☒ You have to pay: Rs. 1300

[Clear Response](#)

What will be the output of the following code if $n=4$?

```
1 FUNCTION doMath(integer n)
2   BEGIN IF n <= 1
3     return n
4   ELSE
5     return n * doMath(n-1);
```

☐ 16

☐ 12

☒ 24

☐ 64

[Clear Response](#)

Consider a program that calculates the factorial of a given number. The program takes the number as input from the user and uses a recursive function to calculate the factorial. Which of the following options indicate the correct pseudocode to implement the given program?

14 STOP

☒ 1 FUNCTION CalculateFactorial(Integer Num) RETURNS Integer
2 IF (Num<2) THEN
3 RETURN 1
4 ELSE
5 RETURN Num * CALL CalculateFactorial(Num-1)
6 END IF
7 END FUNCTION
8
9 PROGRAM START
10 Integer Num, Factorial
11 GET Num
12 SET Factorial = CALL CalculateFactorial(Num)
13 Print 'The factorial for number ', Num, ' is ', Factorial
14 STOP

☐ 1 FUNCTION CalculateFactorial(Num)
2 IF (Num<=1) THEN
3 RETURN 1
4 ELSE
5 RETURN Num * CALL CalculateFactorial(Num-1)
6 END IF
7 END FUNCTION

Question # 11

 Revisit

Consider a program that prints fibonacci series. The program takes the number of elements in the series as input from the user. Which of the following pseudocodes will print the series as required?

```
18 Integer NumTerms
19 GET NumTerms
20 CALL PrintFibonacci(NumTerms)
21 STOP
```

☒

```
1 FUNCTION PrintFibonacci(Integer NumTerms)
2 Integer Term1,Term2,NextTerm
3 SET Term1=0
4 SET Term2=1
5 SET NextTerm = Term1+Term2
6 FOR Term=Term1 TO NumTerms STEP 1 DO
7 Print NextTerm
8 Term1=Term2
9 Term2=NextTerm
10 NextTerm = Term1+Term2
11 END FOR
12 END FUNCTION
13
14 PROGRAM START
15 Integer NumTerms
16 GET NumTerms
17 CALL PrintFibonacci(NumTerms)
18 STOP
```

Clear Response

How many times the function will be called recursively for input $x=10$ & $y=7$ in the given pseudocode?

```
1 Function (input x, input y)
2   If  $x < y$  Then
3     return function(y, x)
4   Else If  $y \neq 0$  Then
5     integer z = function(x, y-1)
6      $z = z + x$ 
7     return z
8
9   Else
10    return 0
11  End If
12 End Function
```

☐ 6

☒ 7

☐ 8

☐ 10

[Clear Response](#)

What should be the output of the code if user input N as 10?

```
1 READ N
2 SET a = 0
3 SET b = 1
4 SET c = 1
5 REPEAT
6 b = b * c
7 a = a + (b / c)
8 c = c + 1
9 UNTIL c < N
10 Print a
```

☐ 46234

☒ 362880

☐ 10

☐ 55

[Clear Response](#)

How many times the while loop will be executed for $N = 8$?

```
1 SET even = total = 0;  
2 READ N  
3 WHILE even <= N  
4 total = total + even;  
5 even = even + 2;  
6 ENDWHILE  
7 PRINT total
```

☒ 4

☐ 8

☐ 5

☐ 9

[Clear Response](#)

What will be the complexity for the below pseudocode?

```
1 SET t = 0
2 READ Array A[0...9]
3 FOR each element e in A
4 t = t + e
5 ENDFOR
6 PRINT t
```

☒ Order of 10

☐ Order of 1

☐ Order of 100

☐ Order of 2

[Clear Response](#)

What will be the size of the Queue after execution of the following code with N=10?

```
1 while (Starting from i=1 execute N times with increment of 1){  
2   push i to the queue  
3   if(i is multiple of 2){  
4     peek it from the queue  
5   }  
6   if (i is multiple of 3){  
7     poll it from the queue  
8   }  
9 }
```

☐ 3

☐ 2

☒ 7

☐ 5

[Clear Response](#)

Question # 17

Revisit

Provide a sample snippet of Pseudocode for "Stack" operation, i.e. LIFO principle. You are taking ten items and display them in LIFO principle, i.e. Last In First Out Principle.

```
2 //Get names one by one and add in loop
3 nameCount = 10;
4 for (int i = 0; i < nameCount;i++) {
5     //Get name and add in nameList
6 }
```

☒

```
1 ArrayList nameList = new ArrayList();
2 //Get names one by one and add in loop
3 nameCount = 10;
4 for (int i = 0; i < nameCount;i++) {
5     //Get name and add in nameList
6 }
7 //Display in LIFO order
8 for (int i = nameList.length(); i > 0;i--) {
9     System.out.println(nameList.get(i).toString())
10 }
```

☐

```
1 ArrayList nameList = new ArrayList();
2 //Get names one by one and add in loop
3 nameCount = 10;
4 for (int i = 0; i < nameCount;i++) {
5     //Get name and add in nameList
6 }
7 //Display in LIFO order
8 for (int i = nameList.length(); i > 0;i--) {
9     System.out.println(nameList.get(i).toString())
10 }
```

Which of the following is the pseudocode for taking three numbers as input and printing the biggest number?

10 End If
11 Else
12 Print x
13 End If

☒ 1 READ x
2 READ y
3 READ z
4
5 If x > y Then
6 If x > z Then
7 Print x
8 Else
9 Print z
10 End If
11 Else
12 Print y
13 End If


☐ 1 READ x
2 READ y
3 READ z
4
5 If x > y Then

Consider a program that takes three numbers as input and then prints the greatest of the three numbers. Which of the following pseudocodes will give the correct answer?

1 START
2 Integer A, B, C, Largest
3 Get A, B, C
4 IF (A > B) AND (A > C) THEN
5 SET Largest = A
6 ELSE
7 IF (B > A) AND (B > C) THEN
8 SET Largest = B
9 ELSE
10 SET Largest = C
11 END IF
12 END IF
13 Print 'The largest number is ', Largest
14 STOP

0
1 START
2 Get A, B, C
3 IF (A > B) OR (A > C) THEN
4 SET Largest = A
5 ELSE
6 IF (B > A) OR (B > C) THEN
7 SET Largest = B
8 ELSE
9 SET Largest = C

Question # 10

 Revisit

Choose the best option

Consider the given codes and choose the option that is associated with these codes.

Code 1:

```
function average_mark( set_of_marks )  
...  
end function
```

Code 2:

```
halfterm_marks = [53,60,80]  
  
print "The average is:"  
print average_mark( halfterm_mark )
```

- ☒ Formal Parameter - set_of_marks
Actual Parameter - halfterm_mark
- ☐ Formal Parameter - halfterm_mark
Actual Parameter - set_of_marks
- ☐ Formal Parameter - average_marks
Actual Parameter - halfterm_marks
- ☐ Formal Parameter - halfterm_marks
Actual Parameter - average_marks

Clear Response

Fill in the blank:

The following program is used to identify which type of a number.

```
1 initialize a temp variable
2 while (i is less than half of the number){
3     if(remainder of the division between number and i is 0){
4         add the value of i to the temp variable
5     }
6 }
7 if(temp is equal to number){
8     return true
9 }else{
10    return false
11 }
```

☐ Prime

☐ Perfect

☐ Armstrong

☒ Perfect square

Clear Response

Consider the following pseudocode:

What would be the output of the pseudocode if the input to the program was 15?

```
1 START
2 Integer TotalNum, NumBoys, NumGirls, BoysPercent
3 SET BoysPercent=10
4 GET NumBoys
5 SET TotalNum = (NumBoys*100)/BoysPercent
6 SET NumGirls = (TotalNum*(100-BoysPercent-1))/100
7 Print 'Total number of pupils: ', TotalNum
8 Print 'Number of girls: ', NumGirls
9 STOP
```

- ☐ Total number of pupils: 115
Number of girls: 133
- ☐ Total number of pupils: 150
Number of girls: 134
- ☐ Total number of pupils: 125
Number of girls: 137
- ☒ Total number of pupils: 150
Number of girls: 135

Clear Response

Your requirement is to find out the grades and specific amount of fees that need to be paid according to the grade they earned. It can be called anywhere multiple times. How will you do?


14 required

1 Implemented below set of pseudocode
 2 in a routine(function).
 3 Start
 4 def calculateGradeAndFees(int marks)
 5 if marks >= 90 then
 6 grade = 'A';
 7 fees = 10000;
 8 //similarly many def statements for other
 9 //set of conditions
 10 call calculateGradeAndFees(94);
 11 Stop

1 Implemented below set of pseudocode
 2 in a routine(function).
 3 Start
 4 def calculateGradeAndFees(int marks)
 5 if marks >= 90 then
 6 grade = 'A';
 7 fees = 10000;
 8 else if marks >= 80 and marks < 90 then
 9
 10 else if
 11 call calculateGradeAndFees(94);
 12 Stop
 13 Any modifications are required, it is enough
 14 to do in "calculateGradeAndFees" routine only

1 Implemented below set of pseudocode in
 2 main program itself
 3 Start
 4 main()
 5 let marks = 94;
 6 if marks >= 90 then
 7 grade = 'A';
 8 fees = 10000;

Question # 12

 Revisit

Write sample pseudocode for performing an operation, multiple times, but declared only Once. A function routine is needed for calculator purpose.

```
1 function addNumbers(int numOne, int numTwo) returns result
2 return (numOne + numTwo);
3 }
4 function subNumbers(...) {.....}
5 addedValue = addNumbers(10, 50);
6 addedValue = addNumbers(123, 49341);
7 .....
```

☐ 1 function addNumbers(int numOne, int numTwo) returns result
2 return (numOne + numTwo);
3 }
4 function subNumbers(...) {.....}

☐ 1 function addNumbers(int numOne, int numTwo) returns result
2 }
3 function subNumbers(...) {.....}
4 addNumbers(10, 50);
5 addNumbers(123, 49341);
6

☒ 1 function addNumbers(int numOne, int numTwo) returns result
2 }
3
4 addedValue = addNumbers(10, 50);
5 addedValue = addNumbers(123, 49341);
6

What will be the size of the Queue after execution of the following code with N=10?

```
1 while (Starting from i=1 execute N times with increment of 1){  
2   push i to the queue  
3   if(i is multiple of 2){  
4     peek it from the queue  
5   }  
6   if (i is multiple of 3){  
7     poll it from the queue  
8   }  
9 }
```

☐ 3

☐ 2

☒ 7

☐ 5

[Clear Response](#)

Revisit

Choose the best option

Your program needs to assign designations to an employee according to their seniority level and the years of service they did in an organization. How will you implement that?

- ☐ 1 Let the age of employee = 50
2 Let years of service = 10
3 if (age of employee > 40) and years of service
4 > 5) {
5 BAND = 'A';
6 else if (age of employee > 40) {
7 BAND = 'B';
8 }
- ☒ 1 Let the age of employee = 50
2 Let years of service = 10
3 if (age of employee > 40 and years of service
4 > 5) {
5 BAND = 'A';
6 else if (age of employee > 40 and years of service
7 > 2) {
8 BAND = 'B';
9 }
- ☐ 1 Let the age of employee = 50
2 Let years of service = 10
3 if (age of employee > 40) {
4 BAND = 'A';
5 else if (age of employee > 30 and age of employee < 40) {
6 BAND = 'B';
7 }
- ☐ 1 Let the age of employee = 50
2 Let years of service = 10
3 if (years of service > 10) {
4 BAND = 'A';
5 else if (years of service > 5 and years of service <= 10) {
6 BAND = 'B';
7 }

Which of the following is the pseudocode to print all multiples of 5 between 1 and 100?

2 While $x \leq 20$
3 Print y
4 $y = x * 5$
5 $x = x + 1$
6 End While

☐ 1 Set $x = y = 1$
2 While $x < 20$
3 $y = x * 5$
4 Print y
5 $x = x + 1$
6 End While

☒ 1 Set $x = y = 1$
2 While $x \leq 20$
3 $y = x * 5$
4 Print y
5 $x = x + 1$
6 End While

☐ 1 Set $x = y = 1$
2 While $x \geq 20$
3 $y = x * 5$
4 Print y

Which of the following options indicate the correct pseudocode that can be used to find if a given number is positive or negative using a logical operator?

☒ 1. START
2. Integer Num
3. GET Num
4. IF (Num==0) THEN
5. Print 'The number is neither positive nor negative'
6. ELSE
7. IF NOT (Num>0) THEN
8. Print 'The number is a negative number'
9. ELSE
10. Print 'The number is a positive number'
11. END IF
12. END IF
13. STOP

☐ 1. START
2. GET Num
3. IF (Num>0) THEN
4. Print 'The number is a positive number'
5. ELSE
6. Print 'The number is a negative number'
7. END IF
8. STOP

Which of the given options uses a function that creates an array and adds only even numbers to that array?

☒

```
1 function addEvenNumbers
2   create an array "evenNumbers" and set that equal to an empty
  array
3   check if that number is even
4   if the number is even (if there is no remainder when divided
  by 2)
5     add that to the array evenNumbers
6   return "evenNumbers"
```

☐

```
1 function addEvenNumbers
2   create an array "evenNumbers" and set that equal to an empty
  array
3   for each number in that array
4     if the number is even (if there is a remainder when divided
  by 2)
5       add to that to the array evenNumbers
6   return evenNumbers
```

☐

```
1 function addEvenNumbers
2   create an array evenNumbers and set that equal to an empty
  array
3   for each number in that array
4     check if that number is even
```

Revisit

Choose the correct Pseudocode for the given Example program that displays Fibonacci series numbers upto 50.

```
1 int main( )
2 {
3   int a, f, x1, x2, fib;
4   if ( a < 2 ) return a;
5   else {
6     x1 = x2 = 1;
7     for(f=2;f<a;f++)
8     {
9       fib = x1 + x2;
10      x2 = x1;
11      x1 = fib;
12    }
13    return fib;
14 }
```

Choose the best option

☒ 1 Declare an integer variable called a
2 Declare an integer variable fib
3 Declare an integer variable x1
4 Declare an integer variable x2
5 set loopcounter to 2
6 values
7 set fib to 0
8 set x1 and x2 to 1
9 set a to 50
10 repeat a times
11 sum = x1 + x2
12 x2 = x1
13 x1 = fib
14 print fib
15 end loop

☐ 1 Declare an integer variable called a
2 Declare an integer variable fib
3 Declare an integer variable x1
4 Declare an integer variable x2
5 set loopcounter to 2

What should be the value of b after the pseudocode is run for user input N as 10?

```
1 READ N
2 SET a = 8
3 SET b = 1
4 SET c = 1
5 REPEAT
6   b = b * c
7   a = a + (b / c)
8   c = c + 1
9 UNTIL c < N
10 Print a
```

☐ 45234

☒ 362880

☐ 10

☐ 55

[Clear Response](#)

Consider a scenario where a program takes the amount of money that a salesperson has earned for the company on a given day and calculates the commission that the salesperson will receive, which is equal to the difference between the amount earned and 90% of the amount earned for the given day and prints the commission amount to be paid to the person. Which of the following pseudocodes correctly implements this program?

- ☐ 1 START
2 Float moneyEarned
3 GET moneyEarned
4 SET commission = moneyEarned - (moneyEarned * 90/100)
5 Print 'The commission to be paid is ', commission
6 STOP
- ☐ 1 START
2 Float moneyEarned
3 GET moneyEarned
4 SET commission = moneyEarned * (10/100)
5 Print 'The commission to be paid is ', commission
6 STOP
- ☐ 1 START
2 Float moneyEarned, commission
3 GET moneyEarned
4 SET commission = moneyEarned * 10/100
5 Print 'The commission to be paid is ', commission
6 STOP
- ☒ 1 START
2 Float moneyEarned, commission
3 GET moneyEarned
4 SET commission = (moneyEarned - moneyEarned * 90/100)
5 Print 'The commission to be paid is ', commission
6 STOP

(This Response)

How many times the function will be called recursively for input $x=10$ & $y=7$ in the given pseudocode?

☐ 6

☒ 7

☐ 8

☐ 10

[Clear Response](#)

```
1 Function (input x, input y)
2   If  $x < y$  Then
3     return function(y, x)
4   Else If  $y \neq 0$  Then
5     integer z = function(x, y-1)
6      $z = z + x$ 
7     return z
8
9   Else
10    return 0
11  End If
12 End Function
```

What will be the output of the following code?

```
1 numbers = {1,2,3,4,5,5,6}
2 int num1 = numbers.size() - 1;
3 int num2 = 0;
4 for(each number){
5     add number to num2 and assign again to num2
6 }
7 int num3 = num2 - (num1*(num1+1)/2);
8 return num3;
```

☐ 26

☒ 5

☐ 7

☐ 21

[Clear Response](#)

Consider a program that calculates the factorial of a given number. The program takes the number as input from the user and uses a recursive function to calculate the factorial. Which of the following options indicate the correct pseudocode to implement the given program?

12 SET Factorial = COMPUTE CalculateFactorial(Num)
13 Print 'The factorial for number ', Num, ' is ', Factorial
14 STOP

☒ 1 FUNCTION CalculateFactorial(Integer Num) RETURNS Integer
2 IF (Num<2) THEN
3 RETURN 1
4 ELSE
5 RETURN Num * CALL CalculateFactorial(Num-1)
6 END IF
7 END FUNCTION
8
9 PROGRAM START
10 Integer Num, Factorial
11 GET Num
12 SET Factorial = CALL CalculateFactorial(Num)
13 Print 'The factorial for number ', Num, ' is ', Factorial
14 STOP

☐ 1 FUNCTION CalculateFactorial(Num)
2 IF (Num<=1) THEN
3 RETURN 1
4 ELSE
5 RETURN Num * CALL CalculateFactorial(Num-1)

A program prints the multiplication tables from 1 to 10. The multiplication tables are to be printed using a function. Which of the following pseudocodes will implement this functionality?

☒ 1 FUNCTION MultiTable
2 FOR Num=1 TO 10 DO
3 Print 'Multiplication Table for ', Num
4 FOR I=1 TO 10 DO
5 Print Num, '*', I, '=', (Num*I)
6 END FOR
7 END FOR
8 END FUNCTION
9
10 PROGRAM START
11 Print 'This program prints multiplication tables from
12 CALL MultiTable
13 STOP

☐ 1 FUNCTION MultiTable
2 FOR Num=1 TO 10 STEP 1 DO
3 Print 'Multiplication Table for ', Num
4 FOR I=1 TO 10 DO
5 Print Num, '*', I, '=', (Num*I)
6 END FOR
7 END FOR
8 END FUNCTION

Revisit

Provide sample pseudocode for performing an operation, multiple times, but declared only Once. A function routine is needed for calculator purpose.

Choose the best option

- ☒

```
1 function addNumbers(int numOne,int numTwo) returns  
2   return (numOne + numTwo);  
3 }  
4 function subNumbers(...) {.....}  
5 addedValue = addNumbers(10,50);  
6 addedValue = addNumbers(123,49341);  
7 .....
```
- ☐

```
1 function addNumbers(int numOne,int numTwo) returns  
2   return (numOne + numTwo);  
3 }  
4 function subNumbers(...) {.....}
```
- ☐

```
1 function addNumbers(int numOne,int numTwo) returns  
2 }  
3 function subNumbers(...) {.....}  
4 addNumbers(10,50);  
5 addNumbers(123,49341);  
6 .....
```
- ☐

```
1 function addNumbers(int numOne,int numTwo) returns
```

With a single routine can you able to generate a multiplication table structure for any given number?
Few lines of code will be helpful to identify your thought.

```
1 main(  
2   int number, int endIndex) {  
3   for (int i = 1; i <= endIndex; i++)  
4     print(number * i = (number * i));  
5   The output is displayed as  
6   2 * 8 = 8  
7   2 * 1 = 2  
8   .....  
9   2 * 20 = 40
```

```
1 def generateMultiplicationTable(  
2   int number, int endIndex) {  
3   for (int i = 0; i <= endIndex; i++) {  
4     print(number * i = (number * i));  
5   }  
6   call generateMultiplicationTable(2, 20)  
7   Output is displayed as  
8   2 * 8 = 8  
9   2 * 1 = 2  
10  .....  
11  2 * 20 = 40
```

Clear Response

What will be the output of the following code if n=4?

```
1 FUNCTION doMath(integer n)
2   BEGIN IF n <= 1
3     return n
4   ELSE
5     return n * doMath(n-1);
```

☐ 16

☐ 12

☒ 24

☐ 64

[Clear Response](#)

What will be the output of the following code if N=15?

```
1 if(N is less than 0){  
2   print "invalid number"  
3 }  
4 if(N is divisible by 3 AND N is not divisible by 5){  
5   print "Type 1"  
6 }else if(N is divisible by 5 OR N is not divisible by 3){  
7   print "Type 2"  
8 }else if (N is divisible by 5 AND N is divisible by 3){  
9   print "Type 3"  
10 }
```

☐ Invalid number

☐ Type 1

☒ Type 2

☐ Type 3

[Clear Response](#)

Consider the following pseudocode:

What will be the output of this pseudocode if it is executed?

```
1 FUNCTION PayEmp(Integer workHrs, Integer sales) RETURNS Integer
2   Integer Pay, PayPerHr, SalesPay
3   SET PayPerHr = 5
4   IF sales < 10000 THEN
5     SET SalesPay = 150
6   ELSE IF sales < 50000 THEN
7     SET SalesPay = 750
8   ELSE
9     SET SalesPay = ((150 + 100) / 10000) * 0.5 * sales / 100
10  END IF
11  SET Pay = PayPerHr * workHrs + SalesPay
12  RETURN Pay
13 END FUNCTION
14
15 PROGRAM START
16   Integer Pay
17   SET Pay = CALL PayEmp(20, 60000)
18   Print "You have to pay: Rs. ", Pay
19 STOP
```

☐ You have to pay: Rs. 4600

☐ You have to pay: Rs. 6100

☐ You have to pay: Rs. 1000

☒ You have to pay: Rs. 1300

[Clear Response](#)

What will be the output of the following program if the input is 'programmer'?

```
1 for (each character in the input){  
2   push the character on to the stack  
3 }  
4 while (stack is not empty){  
5   output += pop the stack  
6 }
```

- ☐ reargmmorp
- ☒ remmargorp
- ☐ remorargmp
- ☐ None of the given options

[Clear Response](#)

Your requirement is to prepare a palindrome kind of strings. i.e. your string if reads both in front to back and back to the front should pronounce the same. E.g., AMMA. Write a pseudocode for that.

Given string is a palindrome.

```
1 String str = "MALAYALAM"
2 String revStr = "";
3 //As from last the character is taken
4 for (int i = str.length()-1; i >= 0; i--) {
5     revStr += str[i];
6 }
7 if (str.equals(revStr))
8     print "Given string is palindrome";
9 else
10    print "Given string is not a palindrome";
```

Output :

The given string is a palindrome.