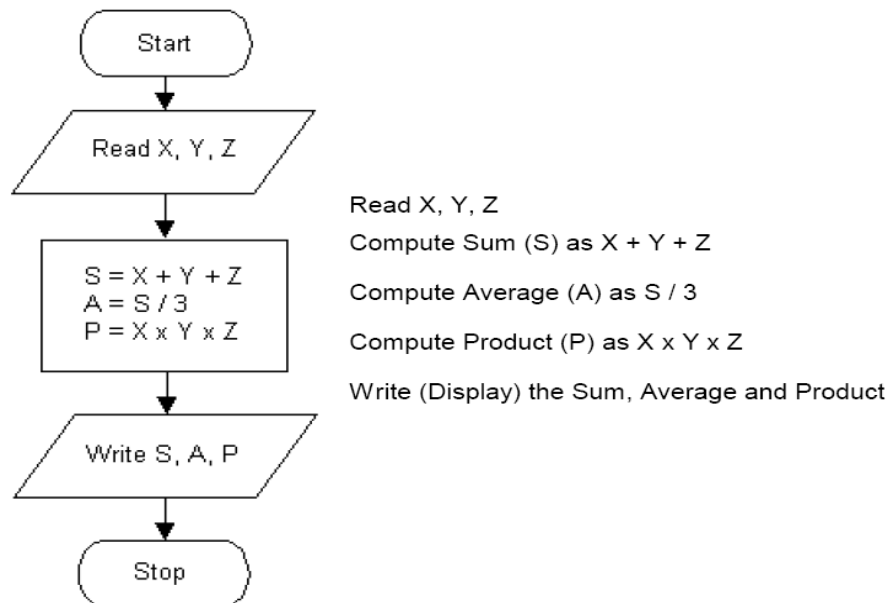
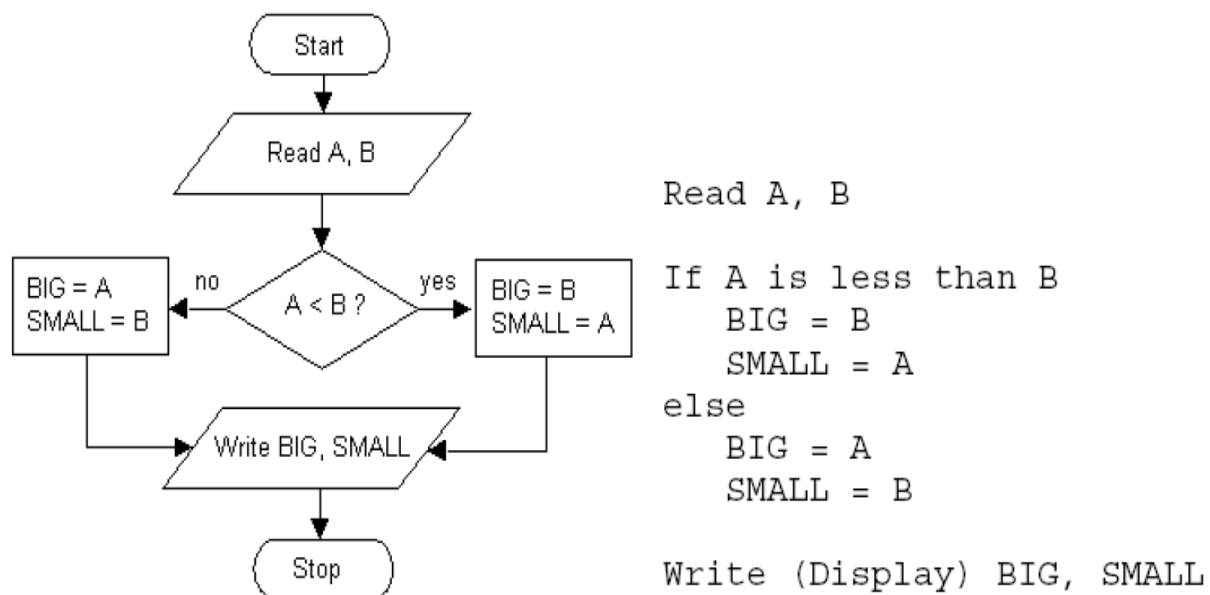


TUTORIAL (1)

Q1: Write the Algorithm and the Flow chart to computes the sum, average and product of three numbers:



Q2: Write the Algorithm and the Flow chart to reads two numbers and displays the numbers read in decreasing order.



Q3: Write a program with a number (n) as its input which calculates the following formula and writes the result:

$$S = 1/2 + 1/4 + 1/6 + 1/8 + \dots + 1/n$$

INPUT "Enter the number";N

K=2

S=0

40 S=S+1/K

K=K+2

IF K<=N THEN

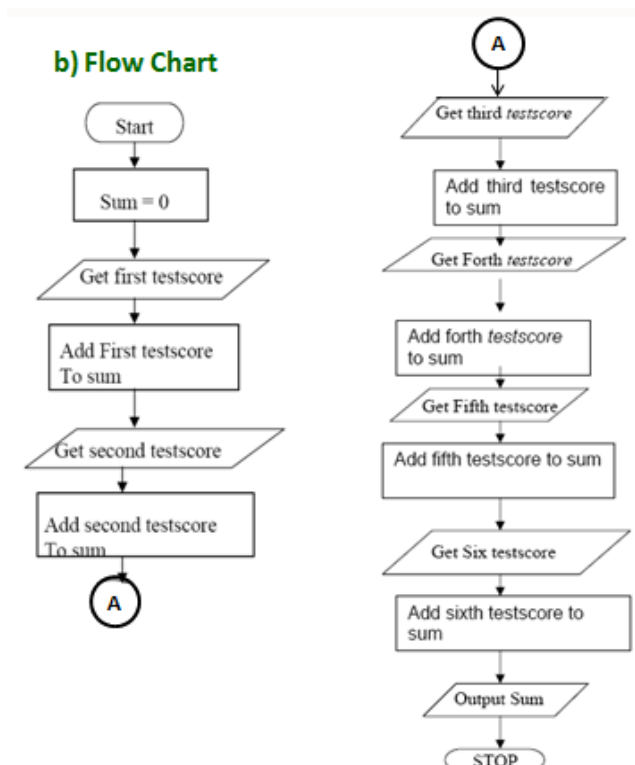
GOTO 40

ELSE

PRINT "The sum =" ;S

END IF

Q4: Design an algorithm and the corresponding flowchart for adding the test scores as given : 26, 49, 98, 87, 62, 75

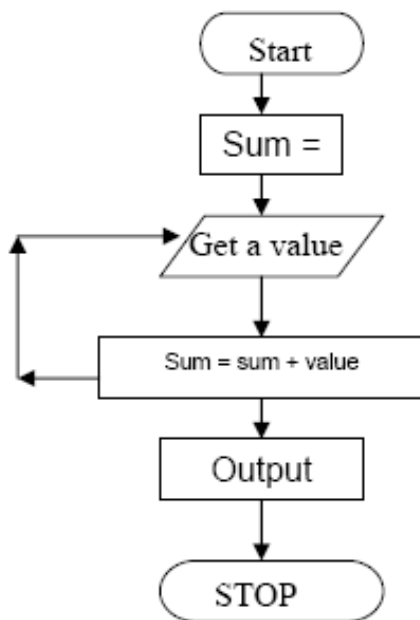


a) Algorithm:

1. Start
2. Sum = 0
3. Get the first test score
4. Add first test score to sum
5. Get the second test score
6. Add to sum
7. Get the third test score
8. Add to sum
9. Get the Forth test score
10. Add to sum
11. Get the fifth test score
12. Add to sum
13. Get the sixth test score
14. Add to sum
15. Output the sum
16. Stop

Or in a shorten way:

1. Start
2. Sum = 0
3. Get a value
4. sum = sum + value
5. Go to step 3 to get next Value
6. Output the sum
7. Stop



Exercise: Predict the output of the following programs and actually carry out the coding.

- | | |
|--------------------|-------------------|
| 1. PRINT 16-10+4 | 2. PRINT 20+7*2 |
| 3. PRINT 5*3-2 | 4. PRINT 16-7*2 |
| 5. PRINT (16-7)*2 | 6. PRINT 14-6/2 |
| 7. PRINT 10^2 | 8. PRINT (5+2)^2 |
| 9. PRINT 5+3^2 | 10. PRINT 5^3+2 |
| 11. PRINT 2^3*5 | 12. PRINT 5^(2+1) |
| 13. PRINT 5+9-7+12 | |
| PRINT 12*6-5*4 | |
| PRINT 12*(6-5)*4 | |
| PRINT 12/6*0.5 | |
| END | |

```

14.  PRINT 5*4+7-12
      PRINT 3*12/4-5
      PRINT 5+18/2-9
      PRINT 10*15-36/4
      END
15.  PRINT 9*4/6+3
      PRINT 9*4/(6+3)
      PRINT 12-4/2+2
      PRINT (12-4)/2+2
      END
16.  PRINT (3^2+8)/2
      PRINT 3^2+8/2
      PRINT 3^(2+8/2)
      PRINT (9*5+15)/(2^3)
      END

```

Q5: Write a program to find the result of the equation below:

$$q = a^3 + 3 \frac{ab}{7} + 2\sqrt{b}$$

```

INPUT a,b
q=a^3+(3*a*b/7)+2*sqr(b)
PRINT q
END

```

Q6: Write a program to calculate the area and circumferential of rectangle shape.

```

INPUT a,b
LET AREA=a*b
LET CIR=(a+b)/2
PRINT AREA, CIR
END

```

Q7: Write a program to calculate the area of circle.

```

CLS
pi! = 3.1415
INPUT "What is the radius of the circle? ", radius!

```

```
area! = pi! * radius! ^ 2
PRINT "The area of the circle is ", area!
END
```

Q8: This program converts the temperature from Celsius to Fahrenheit:

```
CLS
INPUT "How many degrees Celsius"; c
PRINT c; "degrees Celsius ="; c * 1.8 + 32; "degrees Fahrenheit"
END
```

Q9: Check TRUE and FALSE for the following statements:

a%=1: b%=2: c%=3	
a% < c% AND c% >= a% + b%	TRUE AND TRUE → TRUE
c% >= a% + b% AND c% < a	TRUE AND FALSE → FALSE
c% < a AND b% = a% * 3	FALSE AND FALSE → FALSE
c% >= a% + b% OR c% < a	TRUE OR FALSE → TRUE
c% < a OR b% = a% * 3	FALSE OR FALSE → FALSE
NOT (c% - b% = a%)	NOT (TRUE) → FALSE
NOT (b% >= c%)	NOT (FALSE) → TRUE