Std. III. Computer

L.5   Mathematical operations in LOGO

1. **Find and correct the errors in the following commands. (Do it in book)**

     A. PRINT " COMPUTER IS A MACHINE"

     Ans. PRINT [COMPUTER IS A MACHINE]

     B. SUM   6   7

     Ans. PRINT   SUM   6   7

     C. PRINT   (GOOD MORNING)

     Ans. PRINT [GOOD MORNING]

     D.PRINT [SUM 12   5]

     Ans. PRINT   SUM   12   5

     E. PRINT   PRODUCT   6   3   7

     Ans PRINT   (PRODUCT   6   3   7)

     F. PRINT   QUOTIENT   9/3

     Ans. PRINT   QUOTIENT   9   3

2. **Choose the correct option. (Do it in book)**

A. Which of the following primitive is used to find the difference of two numbers?

I.   MINUS

II. DIFFERENCE

III. SUBTRACT

Ans . II. DIFFERENCE

B. Which of the following operators is used to find the product of two numbers?

I.   *

II. ^

III. %

Ans. I. *

C. Which of the following commands can be used to move the turtle forward by 30 units?

I.   FD 40+ 20-10

II. FD 30*10

III. FD 20+10+0

Ans. III. FD 20 +10+0

D. Which of the following commands can be used to turn the turtle right by 90 degree?

I.   RT 90+10

II. RT 45* 45

III. RT QUOTIENT 180 2

Ans. III. RT QUOTIENT   180   2

E. Which of the following commands is used to display the sum of two numbers 15 and 45 ?
I.   PRINT SUM 15+45
II.   PRINT 15   45
III.   PRINT SUM 15 45

Ans . III. PRINT SUM   15   45

3. Match the following commands with the result they give. (Do it in book)

A. PRINT (SUM 58 13   32)   i. 11
B. PRINT [I LOVE LOGO]   ii. 34
C. PRINT 33/3   iii. 2
D. PRINT REMAINDER 79 7   iv. I LOVE LOGO
E. PRINT   43- 9.   v. 103

Ans.   A ------------   v

        B ------------   iv

        C ------------   i

        D -----------   iii

        E -----------   ii

4. Fill in the blanks. (Do it in copy)

1The __Print__ primitive can be used to write your name in LOGO.

2.The __Difference__ primitive is used to find the difference of two numbers.

3.The __Product__ primitive can be used to find the product of 15 and 10.

4.The __Remainder__ primitive gives remainder on dividing 31 by 5.

5.The __Sum__ primitive can be used to add two numbers.

5. Put a tick (√) for the correct statements and a cross (X) for the wrong ones. (Do it in book)
   A. The print primitive cannot be used to print a sentence. (X)
   B. You can either use the QUOTIENT primitive or the '/' .   (√)
   C. The Difference primitive is used to add two numbers. (X)

D. The command FD 20+20+10 moves the turtle forward by 50 units. (√)

E. The command PRINT REMAINDER 10 2 gives the result 5. (X)

6. Answer these questions. (Do it in copy)

Q1. What is the use of PRINT primitive?

Ans. The PRINT primitive is used to display any number, text or the result of some operation in the Recall List Box.

eg . Print " Hello

Prints the word Hello in the Recall List Box.

Q2. What are the various mathematical operations that can be performed in LOGO?

Ans. Mathematical operations that can be performed in LOGO are :-

* Addition (+)

* Subtraction (-)

* Multiplication (*)

* Division (/)

Q3. Write the different ways to find the sum of numbers 19 , 37   and 58.

Ans. Ways to find the sum of numbers 19 , 37 and 58 are :-

I.   Print (Sum 19 37 58)

II.   Print 19 +37 58

Q4. Give the difference between QUOTIENT and REMAINDER primitive.

Ans. The Quotient primitive is used to divide one number by another and gives quotient whereas the REMAINDER primitive gives the remainder obtained on dividing one number by another.

Q5. What is the purpose of Difference primitive?

Ans. The Difference primitive is used to subtract one number from another.

eg. Print Difference 40 30

Subtracts the number 30 from 40 , and displays the difference, that is 10 in Recall List Box.

Q7. Application based questions. (Do it in copy)

1.Tanvi has typed the command 16+7 to calculate the sum of 16 and 7 in LOGO. But when she executed the

command, an error message is displayed. What could be the problem?

Ans. Tanvi has used not used the along with the command 16+7 . To calculate the sum of 16 and 7 , she should write the following command.

Print 16+7

2.Soham has executed the LOGO command FD PRODUCT 8   10 . By how many units, the turtle will move forward?

Ans. The turtle will move forward by 80 units

Q8. Write the output of the following commands. (Do it in book)

1.Print 5-3   =   2

2. Print Sum   8   9 = 17

3. Print 56+ 8 = 64

4.Print Product 3   6 = 18

5. Print Quotient   7   2 = 3

6. Print " COMPUTER = COMPUTER

7. Print   (4   2   3) = 9

8. Print REMAINDER   20   6 = 2

9. Print   [WORKING IN LOGO] = WORKING IN LOGO

Q9. Write the LOGO command for performing the following arithmetic operations. (Do it in book)

1.Add 6 and 9 = Print   6+9

2.Subtract 7 from 11 = Print   11-7

3. Multiply 5 and 8 =   Print Product   5   8

4. Multiply 3, 5 and 7 = Print (Product 3   5   7)

5. Divide 16 by 2 = Print   16/ 2