

LESSON 10 : GRAPHICS IN BASIC-256

ACTIVITY SECTION

LAB SESSION

A. Write programs for the following:

→ To draw two diagonal lines across the screen.

```
CLG  
LINE 0,0, 299, 299  
LINE 0, 299, 299, 0  
END
```

→ To draw a square of 100×100 pixels whose centre lies at the centre of the Graphics Output area.

```
CLG  
RECT 100, 100, 100, 100  
END
```

→ To draw a polygon in blue colour and a red circle in it.

```
CLG  
COLOR BLUE  
POLY {50, 250, 50, 100, 150, 25, 250, 100, 250, 250}  
COLOR RED  
CIRCLE 150, 150, 75  
END
```

→ To draw a equilateral triangle.

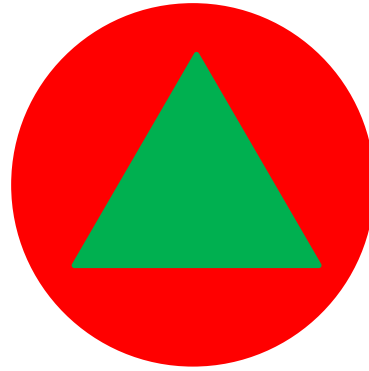
```
CLG  
LINE 50, 200, 250, 200  
LINE 250, 200, 150, 50  
LINE 150, 50, 50, 200  
END
```

→ To draw three concentric circles with equal distance between them.

```
CLG  
COLOR RED  
CIRCLE 150,150, 100  
COLOR GREEN  
CIRCLE 150, 150, 70  
COLOR BLUE  
CIRCLE 150, 150, 40  
END
```

B. Write programs for the following figures:

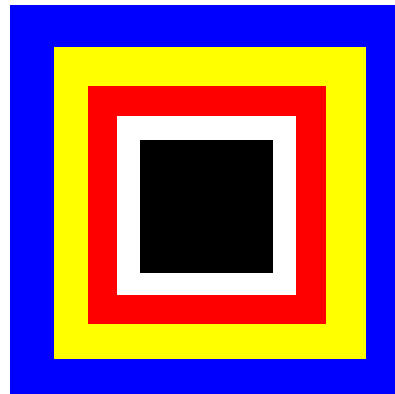
```
CLG
COLOR RED
CIRCLE 150, 150, 135
COLOR GREEN
POLY {50, 200, 250, 200, 150, 50, 50, 200}
END
```



```
CLG
COLOR BLUE
RECT 0,0, 299, 200
COLOR YELLOW
RECT 3,3, 293, 193
COLOR RED
FONT "arial", 75, 50
TEXT 35, 45, "KIPS"
END
```



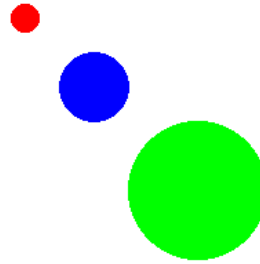
```
CLG
COLOR BLUE
RECT 20,20, 220, 220
COLOR YELLOW
RECT 40, 40, 180, 180
COLOR RED
RECT 60, 60, 140, 140
COLOR WHITE
RECT 80, 80, 100, 100
COLOR BLACK
RECT 100, 100, 60, 60
END
```



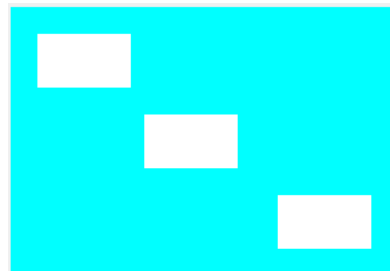
PROJECT WORK

C. Create these figures using the Basic-256 commands.

```
CLG
COLOR RED
CIRCLE 25, 25, 10
COLOR BLUE
CIRCLE 75, 75, 25
COLOR GREEN
CIRCLE 150, 150, 50
END
```



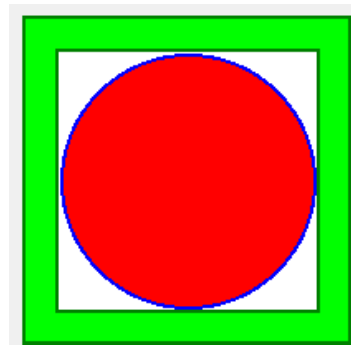
```
CLG
COLOR CYAN
RECT 0,0, 290, 200
COLOR WHITE
RECT 20, 20, 70, 40
RECT 100, 80, 70, 40
RECT 200, 140, 70, 40
END
```



```
CLG
COLOR ORANGE
POLY {100, 175, 100, 100, 150, 125, 200, 100, 200, 175, 150, 200}
COLOR DARKORANGE
POLY {100, 100, 150, 75, 200, 100, 150, 125}
END
```



```
CLG
COLOR DARKGREEN
RECT 50,50, 200, 200
COLOR GREEN
RECT 52,52, 195, 195
COLOR DARKGREEN
RECT 70,70, 160, 160
COLOR WHITE
RECT 72,72, 156, 156
COLOR BLUE
CIRCLE 150, 150, 77
COLOR RED
CIRCLE 150, 150, 75
END
```



```
CLG
COLOR RED
RECT 50, 100, 275, 70
RECT 100, 60, 150, 100
COLOR BLACK
CIRCLE 110, 170, 20
CIRCLE 240, 170, 20
COLOR WHITE
CIRCLE 110, 170, 10
CIRCLE 240, 170, 10
END
```



→ To draw a square of 100×100 pixels whose centre lies at the centre of the Graphics Output area.

```
CLG  
RECT 100, 100, 100, 100  
END
```

→ To draw a polygon in blue colour and a red circle in it.

```
CLG  
COLOR BLUE  
POLY {50, 250, 50, 100, 150, 25, 250, 100, 250, 250}  
COLOR RED  
CIRCLE 150, 150, 75  
END
```

→ To draw a equilateral triangle.

```
CLG  
LINE 50, 200, 250, 200  
LINE 250, 200, 150, 50  
LINE 150, 50, 50, 200  
END
```

→ To draw three concentric circles with equal distance between them.

```
CLG  
COLOR RED  
CIRCLE 150,150, 100  
COLOR GREEN  
CIRCLE 150, 150, 70  
COLOR BLUE  
CIRCLE 150, 150, 40  
END
```

→ Hexadecimal

→

→ 0

- ❖ To find the number of days a driver will take to cover the distance of 2800 km, if the speed of a car is 50 km per hour.

```
CLS
D = 2800
S = 50
T = D/S
PRINT "Number of days to cover the distance = " + (T/24)
END
```

- ❖ To print the sum of first 10 even numbers.

```
CLS
C=2
S=0
START:
S=S+C
C=C+2
IF C<=20 THEN GOTO START
PRINT "SUM = "+ S
END
```

- ❖ To print the odd numbers between 500 to 1000.

```
CLS
N=501
START:
PRINT N
N=N+2
IF N<=1000 THEN GOTO START
END
```

- ❖ To input two numbers and depending upon the user's choice, add, subtract, multiply or divide the numbers.

```
CLS
INPUT "Enter first number ", N1
INPUT "Enter second number ", N2
INPUT "Enter your choice ", C$

IF C$="Add" THEN
PRINT "Sum = "+ (N1+N2)
END IF

IF C$="Subtract" THEN
PRINT "Subtract = "+ (N1-N2)
END IF

IF C$="Multiply" THEN
```

```
PRINT "Multiplication = "+ (N1*N2)
END IF
```

```
IF C$="Divide" THEN
PRINT "Division = "+ (N1/N2)
END IF
END
```

- ❖ **Enter any number 'n' and check whether the number is divisible by 5 or not.**

```
CLS
INPUT "Enter any number ", N
IF N%5=0 THEN
PRINT "Number is divisible by 5"
ELSE
PRINT "Number is not divisible 5"
END IF
END
```

- ❖ **To find the percentage of marks obtained by a student in five subjects. If the percentage is greater than 80, display the message, "Good Performance". Otherwise display the message, "Average Performance".**

```
CLS
INPUT "Enter marks of English ", E
INPUT "Enter marks of Hindi ", H
INPUT "Enter marks of Mathematics ", M
INPUT "Enter marks of Science ", Sc
INPUT "Enter marks of Social Science ", S
P=(E+H+M+Sc+S)/5
PRINT "Percent = " + P
IF P>80 THEN
PRINT "Good Performance"
ELSE
PRINT "Average Performance"
END IF
```

- ❖ **Ayan visited a toy factory. The factory manufactures 10 toy cars in a day. Write a program to find out the number of cars manufactured in a non-leap year or leap year, depending upon the user's choice of year.**

```
CLS
INPUT "Enter year ", Y
IF Y%4=0 THEN
PRINT "It's a leap year"
PRINT "Total manufacturing = " + (366*10)
ELSE
PRINT "It's not a leap year"
PRINT "Total manufacturing = " + (365*10)
END IF
END
```

- ❖ To calculate the amount of bonus given to an employee as per the sales information given below:

If Sales>50000, Then display "Bonus = 1500" If Sales>35000, Then display "Bonus=500"
If Sales>10000, Then display "Bonus = 150" ELSE display "No Bonus"

- ❖ Enter the sales amount and display the total salary of the employee after adding the bonus amount, if his present salary is Rs.20,000 per month.

```
CLS
INPUT "Enter sales ", S

IF S>50000 THEN
PRINT "Bonus = 1500"
PRINT "Total Salary = " + (20000+1500)
END IF

IF S>35000 THEN
PRINT "Bonus = 500"
PRINT "Total Salary = " + (20000+500)
END IF

IF S>10000 THEN
PRINT "Bonus = 150"
PRINT "Total Salary = " + (20000+150)

ELSE

PRINT "No Bonus"
PRINT "Total Salary = " + (20000)
END IF
```


- ❖ **To print the sum of squares of even numbers from 1 to 20 in reverse order.**

```
CLS
S=0
FOR I = 2 TO 20 STEP 2
S=S+I^2
NEXT I
PRINT S
END
```

- ❖ **To print first 10 multiples of 6, 7 and 8.**

```
CLS
FOR A=6 TO 8
FOR B=1 TO 10
PRINT A*B
NEXT B
PRINT
PAUSE 3
NEXT A
END
```

- ❖ **To print the product of even numbers from 1 to 10.**

```
CLS
FOR A=6 TO 8
FOR B=1 TO 10
PRINT A*B
NEXT B
PRINT
PAUSE 3
NEXT A
```

