1.Write a program to print the following format

```
WELCOME TO PL/SQL PROGRAMMING
BEGIN
DBMS_OUTPUT.PUT_LINE('WELCOME TO PL/SQL PROGRAMMING');
END;
/
```

2.Write a program to print the numbers from 1 to 100

```
DECLARE
N NUMBER(3):=1;
V VARCHAR2(1000);
BEGIN
WHILE N <=1000
LOOP
V:=V||''||N;
N:=N+1;
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
END;
/
```

3.write a program to print the even numbers from 1 to 100

```
DECLARE
N NUMBER(3):=0;
BEGIN
WHILE N <=100
LOOP
N:=N+2;
DBMS_OUTPUT.PUT_LINE(N);
END LOOP;
END;
/
```

4.Write a program to print the odd numbers from 1 to 100

```
DECLARE
N NUMBER(3):=1;
BEGIN
WHILE N <=100
LOOP
N:=N+2;
DBMS_OUTPUT.PUT_LINE(N);
END LOOP;
END;
/
```

5.write a program for multiplication table

```
DECLARE
A NUMBER(2):=&A;
B NUMBER(2):=1;
C NUMBER(3);
BEGIN
WHILE B <=10
LOOP
C:=A*B;
DBMS_OUTPUT.PUT_LINE(A||'*'||B||'='||C);
B:=B+1;
END LOOP;
END;
/
```

6.write a program to find the sum of numbers from 1 to 100

```
DECLARE
N NUMBER(3):=1;
S NUMBER(4):=0;
```

```
BEGIN
WHILE N <=100
LOOP
S:=S+N;
N:=N+1;
END LOOP;
DBMS_OUTPUT.PUT_LINE('THE SUM OF 1 TO 100 IS '||S);
END;
/
```

7.Write a program to find the sum of all odd numbers from 1 to 100

```
DECLARE
N NUMBER(3):=1;
S NUMBER(4):=0;
BEGIN
WHILE N <=100
LOOP
S:=S+N;
N:=N+2;
END LOOP;
DBMS_OUTPUT.PUT_LINE('THE SUM OF 1 TO 100 ODD NUMBERS IS '||S);
END;
/
```

8.Write a program to find the sum of all even numbers from 1 to 100

```
DECLARE
N NUMBER(3):=0;
S NUMBER(4):=0;
BEGIN
WHILE N <=100
LOOP
S:=S+N;
```

```
N:=N+2;
END LOOP;
DBMS_OUTPUT.PUT_LINE('THE SUM OF 1 TO 100 EVEN NUMBERS IS '||S);
END;
/
```

9.Write a program to accept a number and find how many digits it contain

```
DECLARE
N NUMBER(5):=&N;
CNT NUMBER:=0;
R NUMBER(2):=0;
BEGIN
WHILE N !=0
LOOP
R:=MOD(N,10);
CNT:=CNT+1;
N:=TRUNC(N/10);
END LOOP;
DBMS_OUTPUT.PUT_LINE('NUMBER OF DIGITS OF GIVEN NUMBER IS '||CNT);
END;
/
```

10.Write a program to accept a number and find the sum of the digits

```
DECLARE
N NUMBER(5):=&N;
S NUMBER:=0;
R NUMBER(2):=0;
BEGIN
WHILE N !=0
LOOP
R:=MOD(N,10);
```

```
S:=S+R;
N:=TRUNC(N/10);
END LOOP;
DBMS_OUTPUT.PUT_LINE('SUM OF DIGITS OF GIVEN NUMBER IS '||S);
END;
/
```

11.Write a program to accept a number and print it in reverse order

```
DECLARE
N NUMBER(5):=&N;
REV NUMBER(5):=0;
R NUMBER(5):=0;
BEGIN
WHILE N !=0
LOOP
R:=MOD(N,10);
REV:=REV*10+R;
N:=TRUNC(N/10);
END LOOP;
DBMS_OUTPUT.PUT_LINE('THE REVERSE OF A GIVEN NUMBER IS '||REV);
END;
/
```

12.Write a program to accept a no and check whether it is Armstrong number or not

13.Write a porgram to generate all the Armstrong numbers from 1 to 1000

14.Write a program to generate all prime numbers between 1 to 100

15.Write a program to aceept a number and check whether it is prime number or not

16.Write a program to display the fibonacci series from 1 to 10

17.Write a program to aceept a number and print it in binary format

18.Write a program to accept a number and find the factorial of the number

19.Find the factorials of numbers from 1 to 10

```
DECLARE
```

```
FACT NUMBER:=1;
V VARCHAR2(100);
BEGIN
FOR I IN 1..10
LOOP
FOR J IN 1..I
LOOP
FACT:=FACT*J;
V:=J||'*'||V;
END LOOP;
DBMS_OUTPUT.PUT_LINE(RTRIM(V,'*')||'='||FACT);
FACT:=1;
V:=NULL;
END LOOP;
END;
/
```

20.Write a program to aceept a number and display it in the Octal format

```
DECLARE
N NUMBER(2):=&N;
R NUMBER(2);
V VARCHAR2(1000);
BEGIN
WHILE N>0
LOOP
R:=MOD(N,8);
V:=R||V;
N:=TRUNC(N/8);
END LOOP;
DBMS_OUTPUT.PUT_LINE('OCTAL OF A GIVEN NUMBER IS '||V);
```

```
END;
/
```

21.Write a program to accept a number and print the multiplication tables upto soo

```
DECLARE
N NUMBER(2):=&N;
M NUMBER;
BEGIN
FOR I IN N..N+5
LOOP
FOR J IN 1..10
LOOP
M:=I*J;
DBMS_OUTPUT.PUT_LINE(I||'*'||J||'='||M);
END LOOP;
DBMS_OUTPUT.PUT_LINE('**********************');
END LOOP;
END;
/
```

22.Write a program to accept the temp in Centigrade and convert it into Fahrenheit(c=F-32/1.8)

```
DECLARE
C NUMBER:=&C;
F NUMBER;
BEGIN
F:=C*1.8+32;
DBMS_OUTPUT.PUT_LINE('THE FARENHETT OF GIVEN OC IS '||F);
END;
/
```

23.Write a program to calculate the area of a triangle by accepting the 3 sides

(s=(a+b+c)/2 area=sqrt(s*(s-a)*(s-b)*(s-c)))

```
DECLARE

S NUMBER;

A NUMBER:=&A;

B NUMBER:=&B;

C NUMBER:=&C;

AREA NUMBER(7,2);

BEGIN

S:=(A+B+C)/2;

AREA:=SQRT(S*(S-A)*(S-B)*(S-C));

DBMS_OUTPUT.PUT_LINE('THE AREA OF TRIANGLE IS '||AREA);

END;

/
```

24.Write a program to calculate the area of a circle by accepting the radius and unit of measure Area=PI*r2

```
DECLARE

R NUMBER:=&R;

AREA NUMBER(7,2);

BEGIN

AREA:=(22/7)*R*R;

DBMS_OUTPUT.PUT_LINE('THE AREA OF CIRCLE IS '||AREA);

END;

/
```

25.Write a program to calculate the perimeter of a circle(perimeter=2*PI*r)

```
DECLARE

R NUMBER:=&R;

PERIMETER NUMBER(7,2);

BEGIN

PERIMETER:=2*(22/7)*R;

DBMS_OUTPUT.PUT_LINE('THE PERIMETER OF CIRCLE IS '||PERIMETER);

END;
```

```
/
```

26.Write a program to accept the 3 sides of the triangle and display the type of triangle

```
DECLARE

A NUMBER(4,2):=&A;

B NUMBER(4,2):=&B;

C NUMBER(4,2):=&C;

PERIMETER NUMBER(7,2);

BEGIN

IF (A=B AND B=C AND C=A) THEN

DBMS_OUTPUT.PUT_LINE('EQUILATERAL TRIANGLE');

ELSIF A=B OR A=C OR C=B THEN

DBMS_OUTPUT.PUT_LINE('ISOSOCELESS TRIANGLE');

ELSE

DBMS_OUTPUT.PUT_LINE('SCALEN TRIANGLE');

END IF;

END;

/
```

27.Write a program accept the value of A,B&C display which is greater

```
DECLARE

A NUMBER(4,2):=&A;

B NUMBER(4,2):=&B;

C NUMBER(4,2):=&C;

BEGIN

IF (A>B AND A>C) THEN

DBMS_OUTPUT.PUT_LINE('A IS GREATER '||''||A);

ELSIF B>C THEN

DBMS_OUTPUT.PUT_LINE('B IS GREATE '||''||B);

ELSE

DBMS_OUTPUT.PUT_LINE('C IS GREATER '||''||C);
```

```
END IF;
END;
/
```

28.Write a program accept a string and check whether it is palindrome or not

```
DECLARE
S VARCHAR2(10):='&S';
L VARCHAR2(20);
TEMP VARCHAR2(10);
BEGIN
FOR I IN REVERSE 1..LENGTH(S)
LOOP
L:=SUBSTR(S,I,1);
TEMP:=TEMP||''||L;
END LOOP;
IF TEMP=S THEN
DBMS_OUTPUT.PUT_LINE(TEMP ||''||' IS PALINDROME');
ELSE
DBMS_OUTPUT.PUT_LINE(TEMP ||''||' IS NOT PALINDROME');
END IF;
END;
/
```

29.Write a program aceepts the value of A,B and swap the nos and print the values

```
DECLARE
A NUMBER(2):=&A;
B NUMBER(2):=&B;
FLAG NUMBER(2);
BEGIN
FLAG:=A;
A:=B;
B:=FLAG;
```

```
DBMS_OUTPUT.PUT_LINE('A '||'= '||A||' AND '||''||'B '||'= '||B);

END;

/
```

30.Write a program to accept the values of A , B and swap the numbers and print the values

without using third variable

```
DECLARE

A NUMBER(2):=&A;

B NUMBER(2):=&B;

FLAG NUMBER(2);

BEGIN

FLAG:=A;

A:=B;

B:=FLAG;

DBMS_OUTPUT.PUT_LINE('A '||'= '||A||' AND '||''||'B '||'= '||B);

END;

/
```

31.Write a program to accept the side of a square and calculate the area area =a2

```
DECLARE

A NUMBER:=&A;

AREA NUMBER(5);

BEGIN

AREA:=A*A;

DBMS_OUTPUT.PUT_LINE('AREA OF A SQUARE IS '||''||AREA);

END;

/
```

32.Write a program to accept principle amount ,rate,time calculate the simple interest si=(p*t*r)/100

```
DECLARE

P NUMBER(6,2):=&P;
```

```
R NUMBER(6,2):=&R;

T NUMBER(6,2):=&T;

SI NUMBER(6,2);

BEGIN

SI:=(P*R*T)/100;

DBMS_OUTPUT.PUT_LINE('SIMPLE INTEREST IS '||''||SI);

END;

/
```

33.Erite a program to aceept the principle amount,rate,time and find the compound interest

ci=p*(1+r/100)n

```
DECLARE

P NUMBER(6,2):=&P;

R NUMBER(6,2):=&R;

T NUMBER(6,2):=&T;

CI NUMBER(6,2);

BEGIN

CI:=P*POWER(1+(R/100),T);

DBMS_OUTPUT.PUT_LINE('COMPOUND INTEREST IS '||CI);

END;

/
```

34.WAP to calculate the sum of 1!+2!+......+n!

```
DECLARE

N NUMBER:=&N;

S NUMBER:=0;

F NUMBER:=1;

BEGIN

FOR I IN 1..N

LOOP

FOR J IN 1..I
```

```
LOOP
F:=F*J;
END LOOP;
S:=S+F;
F:=1;
END LOOP;
DBMS_OUTPUT.PUT_LINE('SUM OF FACT IS '||S);
END;
/
```

35.WAP to calculate the sum of 1+1/2+1/3+.....+1/n

```
DECLARE
N NUMBER:=&N;
A NUMBER;
S NUMBER(6,2):=0;
BEGIN
FOR I IN 1..N
LOOP
A:=1/I;
S:=S+A;
END LOOP;
DBMS_OUTPUT.PUT_LINE('SUM OF NO ARE '||S);
END;
/
```

36.WAP to calculate the sum of 1/1!+1/2!+.....+1/n!

```
DECLARE
N NUMBER:=&N;
S NUMBER(6,2):=0;
F NUMBER:=1;
BEGIN
FOR I IN 1..N
```

```
LOOP
FOR J IN 1..I
LOOP
F:=F*J;
END LOOP;
S:=S+(1/F);
END LOOP;
DBMS_OUTPUT.PUT_LINE('SUM IS '||S);
END;
/
```

37.WAP to calculate the sum of 1/1!+2/2!+.....+n/n!

```
DECLARE
N NUMBER(4):=&N;
S NUMBER(6,2):=0;
F NUMBER(4):=1;
BEGIN
FOR I IN 1..N
LOOP
FOR J IN 1..I
LOOP
F:=F*J;
END LOOP;
S:=S+(I/F);
END LOOP;
DBMS_OUTPUT.PUT_LINE('SUM OF FACT IS '||S);
END;
/
```

38.Write a program to display the months between two dates of a year

```
DECLARE
```

```
D DATE:='&D';

D1 DATE:='&D1';

BEGIN

WHILE D < D1

LOOP

DBMS_OUTPUT.PUT_LINE(TO_CHAR(D,'MONTH'));

D:=ADD_MONTHS(D,1);

END LOOP;

END;

/
```

39.Write a program to accept the date and print the weekdays from the given date

```
DECLARE

D DATE:='&D';

WD DATE;

BEGIN

WD:=D+6;

WHILE D <= WD

LOOP

DBMS_OUTPUT.PUT_LINE(TO_CHAR(D,'DAY'));

D:=D+1;

END LOOP;

END;

/
```

40.WAP to accept the date and print the weekdays from the given date along with date format

```
DECLARE

D DATE:='&D';

WD DATE;

BEGIN

WD:=D+6;
```

```
WHILE D <= WD
LOOP
DBMS_OUTPUT.PUT_LINE(TO_CHAR(D,'DAY')||D);
D:=D+1;
END LOOP;
END;
/
```

41.Writa a program to accept a year and check whether it is leap year or not

```
DECLARE
Y NUMBER:=&Y;
R NUMBER;
BEGIN
IF MOD(Y,4)=0 AND MOD(Y,100)!=0 OR MOD(Y,400)=0
THEN
DBMS_OUTPUT.PUT_LINE(Y ||' IS A LEAP YEAR');
ELSE
DBMS_OUTPUT.PUT_LINE(Y ||' IS NOT A LEAP YEAR');
END IF;
END;
/
```

42.Write a program to accept a year and display all sundays along with the date

```
DECLARE
Y NUMBER(4):=&YYYY;
A DATE;
B DATE;
I NUMBER(2):=1;
BEGIN
A:=TO_DATE('01-JAN-'||Y,'DD-MON-YYYY');
B:=LAST_DAY(ADD_MONTHS(A,11));
WHILE A <= B
```

```
LOOP
IF TO_CHAR(A,'D')=1 THEN
DBMS_OUTPUT.PUT_LINE(LPAD(I,2,'0')||'-'||UPPER(TO_CHAR(A,'DAY'))||A);
I:=I+1;
END IF;
A:=A+1;
END LOOP;
END;
/
```

43.WAP to accept a string and count how many vowels present in the string

```
DECLARE
V VARCHAR2(300):='&V';
CNT NUMBER(5):=0;
C CHAR;
BEGIN
FOR I IN 1..LENGTH(V)
LOOP
C:=SUBSTR(V,I,1);
IF C IN ('A','E','I','O','U') THEN
CNT:=CNT+1;
END IF;
END LOOP;
DBMS_OUTPUT.PUT_LINE('NO OF VOWELS PRESENT = '||CNT);
END;
/
```

44.Write a program to accept a year and check whether it is leap year or not . If it is

leap year then display how many sundays present in that year

```
DECLARE
D DATE:='&YEAR';
```

```
Y VARCHAR2(20);
CNT NUMBER(5):=0;
V VARCHAR2(20);
BEGIN
Y:=TO_CHAR(D,'YYYY');
D:=TO_DATE('01-JAN-'||Y);
IF MOD(Y,4)=0 AND MOD(Y,100)!=0 OR MOD(Y,400)=0 THEN
FOR I IN 1..366
LOOP
V:=TO_CHAR(D,'D');
IF V=1 THEN
CNT:=CNT+1;
END IF;
D:=D+1;
DBMS_OUTPUT.PUT_LINE('NO OF VOWELS PRESENT = '||CNT);
END LOOP;
END;
/
```

45.Write a program to accept a char and check it is vowel or consonant

```
DECLARE
C CHAR:='&C';
BEGIN
IF C='A' OR C='E' OR C='I' OR C='O' OR C='U' THEN
DBMS_OUTPUT.PUT_LINE('VOWEL');
ELSE
DBMS_OUTPUT.PUT_LINE('CONSONANT');
END IF;
END;
/
```

46.WAP to accept A,B,C & D check whether it is Ramanujan number or not

```
DECLARE

A NUMBER:=&A;

B NUMBER:=&B;

C NUMBER:=&C;

D NUMBER:=&D;

BEGIN

IF

POWER(A,3)+POWER(B,3)=POWER(C,3)+POWER(D,3) THEN

DBMS_OUTPUT.PUT_LINE(A||CHR(179)||'+'||B||CHR(179)||'='||C||CHR(179)||'+'||D||
CHR(179));

ELSE

DBMS_OUTPUT.PUT_LINE(A||CHR(179)||'+'||B||CHR(179)||'!='||C||CHR(179)||'+'||D||
CHR(179));

END IF;

END;

/
```

47.WAP to accept the CMR & LMR & find out the total bill amount

i)0-100 units Rs.50 per unit ii)101-200n units Rs.o.25 per unit

iii)>200 units Rs.1.25 per unit

```
DECLARE

LMR NUMBER(5):=&LMR;

CMR NUMBER(5):=&CMR;

TOT NUMBER(5):=0;

BILL NUMBER(7,2):=0;

BEGIN

TOT:=CMR-LMR;

IF TOT <= 100 THEN

BILL:=TOT*.50;

ELSIF TOT > 100 AND TOT <= 200 THEN

BILL:=(100*.50)+((TOT-100)*.75);
```

```
ELSE

BILL:=(100*.50)+(100*.75)+(TOT-200)*1.25;

END IF;

DBMS_OUTPUT.PUT_LINE('TOTAL UNIT CONSUMED '||TOT);

DBMS_OUTPUT.PUT_LINE('TOTAL BILL AMOUNT '||BILL);

END;

/
```

48.WAP or accept marks of 3 subject as i/p and calculate the total marks and division of a student

i) If totmark>=60 then division is First

ii) If totmark <60 and totmark>=50 then division is second

iii) If totmark< 50 and >=35 then division is third

iv) If totmark< 35 then fail

```
DECLARE

M1 NUMBER(2):=&M1;

M2 NUMBER(2):=&M2;

M3 NUMBER(2):=&M3;

TOTMARK NUMBER(5,2);

AVE NUMBER(5,2):=0;

BEGIN

TOTMARK:=M1+M2+M3;

AVE:=TOTMARK/3;

IF AVE>=60 THEN

DBMS_OUTPUT.PUT_LINE('THE DIVISION IS FIRST '||AVE);

ELSIF AVE<60 AND AVE>=50 THEN

DBMS_OUTPUT.PUT_LINE('THE DIVISION IS SECOND '||AVE);

ELSIF AVE<50 AND AVE>=35 THEN

DBMS_OUTPUT.PUT_LINE('THE DIVISION IS THIRD '||AVE);

ELSE

DBMS_OUTPUT.PUT_LINE('FAIL '||AVE);
```

```
END IF;
END;
/
```

49.WAP to accept a number and print its multiplication table horinzontally

```
DECLARE
J NUMBER:=&J;
V VARCHAR2(1000);
K NUMBER(3);
BEGIN
FOR I IN 1..10
LOOP
K:=J*I;
V:=V||J||'*'||I||'='||K||' ';
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
END;
/
```

50.WAP to accept a string and print it in reverse order

```
DECLARE
STR VARCHAR2(100):='&sTR';
STR1 VARCHAR2(100);
N NUMBER(5);
L VARCHAR2(20);
BEGIN
N:=LENGTH(STR);
FOR I IN 1..N
LOOP
L:=SUBSTR(STR,I,1);
STR1:=L||STR1;
```

```
END LOOP;
DBMS_OUTPUT.PUT_LINE(STR1);
END;
/
```

51.Write a program to accept a number and find out the sum of first and last digits

```
DECLARE
A NUMBER(4):=&A;
B NUMBER(5):=0;
C NUMBER(5):=0;
S NUMBER(5);
BEGIN
IF A>9 THEN
C:=SUBSTR(A,1,1);
B:=SUBSTR(A,LENGTH(A),1);
S:=B+C;
ELSE
S:=A;
END IF;
DBMS_OUTPUT.PUT_LINE('SUM OF FIRST AND LAST DIGIT IS '||S);
END;
/
```

52.WAP to accept the basic salary and find out the ta,da,hra,lic and gs

i)ta 20% of basic, da 10% of basic, hra 30% of basic, lic 5% of basic

```
DECLARE
BS NUMBER(6,2):=&BS;
TA NUMBER(6,2);
DA NUMBER(6,2);
HRA NUMBER(6,2);
GS NUMBER(6,2);
```

```
LIC NUMBER(6,2);
NS NUMBER(8,2);
BEGIN
TA:=BS*(20/100);
HRA:=BS*(30/100);
DA:=BS*(10/100);
LIC:=BS*(5/100);
GS:=TA+HRA+DA;
NS:=GS-LIC;
DBMS_OUTPUT.PUT_LINE('EMPLOYEE BS IS '||BS);
DBMS_OUTPUT.PUT_LINE('GROSS SALARY IS '||GS);
DBMS_OUTPUT.PUT_LINE('NET SALARY IS '||NS);
END;
/
```

53.WAP to accept the length and breadth of a rectangle and find out the perimeter

```
DECLARE
L NUMBER(4,2):=&L;
B NUMBER(4,2):=&B;
A NUMBER(4,2);
BEGIN
A:=2*(L+B);
DBMS_OUTPUT.PUT_LINE('THE PERIMETER OF RECTANGLE IS '||A);
END;
/
```

54.WAP to accept the cost price and selling price of an item and find the loss or profit

```
DECLARE
CP NUMBER(25,2):=&CP;
SP NUMBER(25,2):=&SP;
```

```
AMT NUMBER(7,2);
BEGIN
IF CP < SP THEN
AMT:=SP-CP;
DBMS_OUTPUT.PUT_LINE('PROFIT IS '||AMT);
ELSE
AMT:=CP-SP;
DBMS_OUTPUT.PUT_LINE('LOSS IS '||AMT);
END IF;
END;
/
```

55.Writ a program to generate the following series

53 53 53 53 53

43 43 43 43

33 33 33

23 23

13

```
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN REVERSE 1..5
LOOP
FOR J IN 1..I
LOOP
V:=V||I||CHR(179);
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
```

```
/
```

56.WAP to accept a no in binary format and print it in decimal format

```
DECLARE
N VARCHAR2(20):=&N;
PRO NUMBER(10,4):=0;
L VARCHAR2(10);
BEGIN
FOR I IN 1..LENGTH(N)
LOOP
L:=SUBSTR(N,I,1);
PRO:=PRO+L*POWER(2,LENGTH(N)-I);
END LOOP;
DBMS_OUTPUT.PUT_LINE('THE DECIMAL NUMBER IS '||PRO);
END;
/
```

57.WAP to accept two nos and input and find one no is raised to another one (without using any function)

```
DECLARE
A NUMBER:=&A;
B NUMBER:=&B;
R NUMBER:=1;
BEGIN
FOR I IN 1..B
LOOP
R:=R*A;
END LOOP;
DBMS_OUTPUT.PUT_LINE('A RAISED POWER B IS '||R);
END;
/
```

58.WAP to accept a sentence and count the no of chars in that sentence

```
DECLARE
STR VARCHAR2(100):='&STR';
NO NUMBER(5):=0;
I NUMBER;
BEGIN
I:=INSTR(STR,'.');
DBMS_OUTPUT.PUT_LINE('NO OF CHAR IS '||I);
END;
/
```

59.WAP to accept two strings and display the large one among those

```
DECLARE
STR1 VARCHAR2(100):='&STR1';
STR2 VARCHAR2(100):='&STR2';
BEGIN
IF LENGTH(STR1) > LENGTH(STR2) THEN
DBMS_OUTPUT.PUT_LINE(STR1 ||' IS GREATER');
ELSIF LENGTH(STR1) < LENGTH(STR2) THEN
DBMS_OUTPUT.PUT_LINE(STR2 ||' IS GREATER');
ELSE
DBMS_OUTPUT.PUT_LINE('BOTH STRINGS ARE EQUAL');
END IF;
END;
/
```

60.WAP to display all the nos whose sum of digits is 9 from 1 to 9999

```
DECLARE
N NUMBER;
M NUMBER;
S NUMBER:=0;
BEGIN
```

```
FOR I IN 1..999
LOOP
N:=I;
WHILE N>0
LOOP
M:=MOD(N,10);
S:=S+M;
N:=TRUNC(N/10);
END LOOP;
IF S=9 THEN
DBMS_OUTPUT.PUT_LINE(I||' ');
END IF;
S:=0;
END LOOP;
END;
/
```

61.WAP to accept a no and find the sum in a single digit

```
DECLARE
N NUMBER(4):=&N;
S NUMBER(10):=0;
BEGIN
WHILE LENGTH(N)>1
LOOP
FOR I IN 1..LENGTH(N)
LOOP
S:=S+SUBSTR(N,I,1);
END LOOP;
N:=S;
S:=0;
END LOOP;
```

```
DBMS_OUTPUT.PUT_LINE('THE SUM IN SINGLE DIGIT IS '||N);
END;
/
```

62.Enter the no of days and find out the no of years and no of days and months

```
DECLARE
D NUMBER:=&D;
Y NUMBER;
M NUMBER;
BEGIN
Y:=TRUNC(D/365);
M:=TRUNC(MOD(D,365)/30);
D:=MOD(MOD(D,365),30);
DBMS_OUTPUT.PUT_LINE(Y||' YEARS '||M||' MONTHS '||D||' DAYS');
END;
/
```

63.WAP to accept the date and print all the weekdays along with the given date

```
DECLARE
D DATE:='&D';
V VARCHAR2(20);
BEGIN
FOR I IN 1..7
LOOP
V:=TO_CHAR(D,'DAY')||D;
DBMS_OUTPUT.PUT_LINE(V);
D:=D+1;
END LOOP;
END;
/
```

64.WAP while purchasing certain items,discount of each is as follows

i) If qty purchased > 1000 discount is 20%

ii) If the qty and price per item are i/p then calculate the expenditure

```
DECLARE
QTY NUMBER(5):=&QTY;
UP NUMBER(6,2):=&UP;
DIS NUMBER(6,2):=0;
TAMT NUMBER(10,2);
BILL NUMBER(10,2);
BEGIN
BILL:=QTY*UP;
IF BILL > 1000 THEN
DIS:=BILL*20/1000;
END IF;
TAMT:=BILL-DIS;
DBMS_OUTPUT.PUT_LINE('THE TOTAL AMOUNT IS '||TAMT);
END;
/
```

65.Write a program to accept a string and count the no of individual chars

```
DECLARE
V VARCHAR2(100):='&V';
V1 VARCHAR2(100);
LB NUMBER;
LA NUMBER;
DIFF NUMBER;
C CHAR;
N NUMBER(5):=0;
BEGIN
V1:=V;
WHILE LENGTH(V1)>0
LOOP
```

```
C:=SUBSTR(V1,1,1);
LB:=LENGTH(V1);
V1:=REPLACE(V1,C);
LA:=NVL(LENGTH(V1),0);
DIFF:=LB-LA;
IF ASCII(C)=32 THEN
DBMS_OUTPUT.PUT_LINE('SPACE'||' EXISTS '||DIFF||' TIMES');
ELSE
DBMS_OUTPUT.PUT_LINE(C||' EXISTS '||DIFF||' TIMES');
END IF;
N:=N+DIFF;
END LOOP;
DBMS_OUTPUT.PUT_LINE('TOTAL LENGTH OF THE GIVEN STRING '||V||'='||N);
END;
/
```

66.Write a program to display all combination of 1,2,&3

```
BEGIN
FOR I IN 1..3
LOOP
FOR J IN 1..3
LOOP
FOR K IN 1..3
LOOP
DBMS_OUTPUT.PUT_LINE(I||J||K);
END LOOP;
END LOOP;
END LOOP;
END;
/
```

67.Write a program to find out the series 12+22+32+42+....++n2

```
DECLARE
N NUMBER:=&N;
A NUMBER:=1;
B NUMBER:=2;
C NUMBER:=0;
D NUMBER:=0;
S NUMBER:=0;
BEGIN
WHILE A<=N
LOOP
C:=C+A*A;
A:=A+2;
END LOOP;
WHILE B<=N
LOOP
D:=D+B*B;
B:=B+2;
END LOOP;
S:=C-D;
DBMS_OUTPUT.PUT_LINE('RESULT IS '||S);
END;
/
```

68.Write a program to accep the time in HH & MIN format and find the total senconds

```
DECLARE
H NUMBER:=&HOUR;
M NUMBER:=&MINUTE;
S NUMBER(10):=0;
BEGIN
S:=(H*60*60)+(M*60);
```

```
DBMS_OUTPUT.PUT_LINE(H||' HOURS '||M||' MINUTES '||'IS'||S||' SECONDS');

END;

/
```

69.WAP to accept the distance between two cities in km and convert into mts ,cm & ft

```
DECLARE

D NUMBER:=&D;

M NUMBER:=0;

CM NUMBER:=0;

FT NUMBER:=0;

BEGIN

M:=D*1000;

CM:=M*100;

FT:=ROUND(CM/12.3);

DBMS_OUTPUT.PUT_LINE('DISTANCE IN METERS IS '||M);

DBMS_OUTPUT.PUT_LINE('DISTANCE IN CENTIMETERS IS '||CM);

DBMS_OUTPUT.PUT_LINE('DISTANCE IN FOOT IS '||FT);

END;

/
```

70.Write a program to find the series x+x2/2!+x3/3!+.....+xn/n!

```
DECLARE

N NUMBER:=&N;

X NUMBER:=&X;

S NUMBER:=0;

F NUMBER:=1;

BEGIN

FOR I IN 1..N

LOOP
```

```
FOR J IN 1..I

LOOP

F:=F*J;

END LOOP;

S:=ROUND(s+(POWER(X,I)/F),3);

F:=1;

END LOOP;

DBMS_OUTPUT.PUT_LINE('SUM OF NUMBER IS '||S);

END;

/
```

71.Write a program to accept the population of hyderabad each year the population increases

2% after 4y what is the population of hyd

```
DECLARE

P NUMBER:=&P;

L NUMBER;

BEGIN

FOR J IN 1..4

LOOP

L:=P*2/100;

P:=P+L;

END LOOP;

DBMS_OUTPUT.PUT_LINE('POPULATION OF HYDERABAD AFTER 4 YEARS IS '||TRUNC(P));

END;

/
```

72.WAP to accept the 3 dates and display the most recently month among 3 dates

```
DECLARE

D1 DATE:='&D1';
```

```
D2 DATE:='&D2';
D3 DATE:='&D3';
M1 NUMBER;
M2 NUMBER;
M3 NUMBER;
BEGIN
M1:=TO_CHAR(D1,'MM');
M2:=TO_CHAR(D2,'MM');
M3:=TO_CHAR(D3,'MM');
IF M1>M2 AND M1>M3 THEN
DBMS_OUTPUT.PUT_LINE(TO_CHAR(D1,'MON')||' IS RECENT MONTH');
ELSIF M2>M1 AND M2>M3 THEN
DBMS_OUTPUT.PUT_LINE(TO_CHAR(D2,'MON')||' IS RECENT MONTH');
ELSE
DBMS_OUTPUT.PUT_LINE(TO_CHAR(D3,'MON')||' IS RECENT MONTH');
END IF;
END;
/
```

73.Accept a string and print in the following format

```
O
OR
ORA
ORAC
ORACL
ORACLE
DECLARE
V VARCHAR2(20):='&V';
C VARCHAR(20);
```

```
BEGIN
FOR I IN 1..LENGTH(V)
LOOP
C:=SUBSTR(V,1,I);
DBMS_OUTPUT.PUT_LINE(C);
END LOOP;
END;
/
```

74.Write a program to accept the annual income of the emp and find the income tax

i) If the annsal > 60000 then tax is 10% of income

ii) If the annsal > 100000 then tax is Rs 800+16% of income

iii) If the annsal > 140000 then tax is Rs 2500+25% of income

```
DECLARE
AI NUMBER(10,2):=&ANNUALINCOME;
TAX NUMBER(10,3):=0;
BEGIN
IF AI BETWEEN 36000 AND 50000 THEN
TAX:=AI*10/100;
ELSIF AI BETWEEN 50000 AND 100000 THEN
TAX:=800+AI*16/100;
ELSIF AI > 100000 THEN
TAX:=2500+AI*25/100;
END IF;
DBMS_OUTPUT.PUT_LINE('ANNUAL INCOME '||AI);
DBMS_OUTPUT.PUT_LINE('TAX '||TAX);
END;
/
```

75.WAP to accept a year as i/p & find how many even number present in that year

```
DECLARE
Y NUMBER:=&YEAR;
A VARCHAR2(20);
CNT NUMBER(5):=0;
BEGIN
FOR I IN 1..LENGTH(Y)
LOOP
A:=SUBSTR(Y,I,1);
IF MOD(A,2)=0 THEN
CNT:=CNT+1;
END IF;
END LOOP;
DBMS_OUTPUT.PUT_LINE('NUMBER OF EVEN DIGIT IS '||CNT);
END;
/
```

76.WAP to accept a year as i/p & find how many odd number present in that year

```
DECLARE
Y NUMBER:=&YEAR;
A VARCHAR2(20);
CNT NUMBER(5):=0;
BEGIN
FOR I IN 1..LENGTH(Y)
LOOP
A:=SUBSTR(Y,I,1);
IF MOD(A,2)!=0 THEN
CNT:=CNT+1;
END IF;
END LOOP;
```

```
DBMS_OUTPUT.PUT_LINE('NUMBER OF EVEN DIGIT IS '||CNT);
END;
/
```

77.WAP to accept a number and calculate the sum of numbers in even places

```
DECLARE
N NUMBER:=&NUMBER;
A VARCHAR2(10);
S NUMBER:=0;
BEGIN
FOR I IN 1..LENGTH(N)
LOOP
A:=SUBSTR(N,I,1);
IF MOD(I,2)=0 THEN
S:=S+A;
END IF;
END LOOP;
DBMS_OUTPUT.PUT_LINE('SUM OF EVEN PLACE IS '||S);
END;
/
```

78.WAP to accept the emp details and calculate the bonus based on the following conditions

i) If sal < 500 then bonus is 10% sal

ii) If sal > 3500 then bonus is 12% sal

iii) If sal > 1000 then bonus is 13.5% sal

```
DECLARE
EMPNOV NUMBER:=&EMPNOV;
SALV NUMBER;
B NUMBER(7,2);
```

```
BEGIN

SELECT SAL INTO SALV FROM EMP WHERE EMPNO=EMPNOV;

IF SALV BETWEEN 500 AND 3500 THEN

B:=SALV*10/100;

ELSIF SALV BETWEEN 3500 AND 10000 THEN

B:=SALV*12/100;

ELSIF SALV>10000 THEN

B:=SALV*13.5/100;

END IF;

DBMS_OUTPUT.PUT_LINE('EMPNO '||EMPNOV);

DBMS_OUTPUT.PUT_LINE('SALARY '||SALV);

DBMS_OUTPUT.PUT_LINE('BONUS '||B);

END;

/
```

79.WAP to accept the empno and display ename,sal,hiredate and calculate ta,da,hra,lic,gross,exp and

print all emp details. ta is 30% of sal,da is 20% of sal,hra is 15% of sal,lic is 5% of sal

```
DECLARE

EMPNOV NUMBER:=&EMPNOV;

ENAMEV EMP.ENAME%TYPE;

SALV EMP.SAL%TYPE;

HIREDATEV EMP.HIREDATE%TYPE;

EXP NUMBER(7,2);

TA NUMBER(7,2);

DA NUMBER(7,2);

HRA NUMBER(7,2);

LIC NUMBER(7,2);

GROSS NUMBER(7,2);

S NUMBER:=0;
```

```
BEGIN
SELECT ENAME,SAL,HIREDATE INTO ENAMEV,SALV,HIREDATEV FROM EMP WHERE EMPNO=EMPNOV;
EXP:=ROUND(MONTHS_BETWEEN(SYSDATE,HIREDATEV)/12,3);
TA:=SALV*30/100;
DA:=SALV*20/100;
HRA:=SALV*15/100;
LIC:=SALV*5/100;
GROSS:=SALV+TA+DA+HRA-LIC;
DBMS_OUTPUT.PUT_LINE('EMPNO '||EMPNOV);
DBMS_OUTPUT.PUT_LINE('ENAME '||ENAMEV);
DBMS_OUTPUT.PUT_LINE('SALARY '||SALV);
DBMS_OUTPUT.PUT_LINE('EXPERIENCE '||EXP);
DBMS_OUTPUT.PUT_LINE('TA '||TA);
DBMS_OUTPUT.PUT_LINE('DA '||DA);
DBMS_OUTPUT.PUT_LINE('HRA '||HRA);
DBMS_OUTPUT.PUT_LINE('LIC '||LIC);
DBMS_OUTPUT.PUT_LINE('GROSS '||GROSS);
END;
/
```

80.WAP to accept the item no ,item name,qty,unit price and calculate the bill
If the bill > 500 then give discount 2% of bill amount and display the details

```
DECLARE
INO NUMBER:=&INO;
INAME VARCHAR2(50):='&INAME';
QTY NUMBER(5):=&QTY;
UP NUMBER(7,2):=&UP;
DIS NUMBER(7,2):=0;
BILL NUMBER(7,2);
```

```
NET NUMBER(7,2);
BEGIN
BILL:=QTY*UP;
IF BILL > 500 THEN
DIS:= BILL * 2 / 100;
END IF;
NET:=BILL-DIS;
DBMS_OUTPUT.PUT_LINE('ITEM NO '||INO);
DBMS_OUTPUT.PUT_LINE('ITEM NAME '||INAME);
DBMS_OUTPUT.PUT_LINE('QUANTITY '||QTY);
DBMS_OUTPUT.PUT_LINE('UNIT PRICE '||UP);
DBMS_OUTPUT.PUT_LINE('BILL AMT '||BILL);
DBMS_OUTPUT.PUT_LINE('DISCOUNT '||DIS);
DBMS_OUTPUT.PUT_LINE('NET AMT '||NET);
END;
/
```

81.Write a program to generate sequence of numbers horizontally from 1 to 25

```
DECLARE
V VARCHAR2(100);
BEGIN
FOR I IN 1..25
LOOP
V:=V||' '||I;
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
END;
/
```

82.WAP to accept a empno and display empno,name,sal,exp,dname,grade and loc.

```
DECLARE
```

```
EMPNOV NUMBER:=&EMPNO;

ENAMEV EMP.ENAME%TYPE;

HIREDATEV DATE;

SALV EMP.SAL%TYPE;

EXP NUMBER;

DNAMEV DEPT.DNAME%TYPE;

GRADEV SALGRADE.GRADE%TYPE;

BEGIN

SELECT ENAME,SAL,HIREDATE,DNAME,GRADE INTO ENAMEV,SALV,HIREDATEV,DNAMEV,GRADEV FROM
EMP,DEPT,SALGRADE

WHERE EMPNO=EMPNOV AND EMP.DEPTNO=DEPT.DEPTNO AND SAL BETWEEN LOSAL AND HISAL;

EXP:=ROUND(MONTHS_BETWEEN(SYSDATE,HIREDATEV)/12,3);

DBMS_OUTPUT.PUT_LINE('EMPNO '||EMPNOV);

DBMS_OUTPUT.PUT_LINE('ENAME '||ENAMEV);

DBMS_OUTPUT.PUT_LINE('SALARY '||SALV);

DBMS_OUTPUT.PUT_LINE('EXPERIENCE '||EXP||' YEARS');

DBMS_OUTPUT.PUT_LINE('DNAME '||DNAMEV);

DBMS_OUTPUT.PUT_LINE('GRADE '||GRADEV);

END;

/
```

83.WAP to accept a empno and display empno,based on experience calculate the bonus and store it into the bonus table

If exp > 5 years then bonus is 1 month salary

If exp between 5 and 9 years then bonus is 20% of annual salary

If exp more than 9 years then bonus is 1 month sal plus 25% of annual salary

```
DECLARE

EMPNOV NUMBER:=&EMPNO;

ENAMEV EMP.ENAME%TYPE;

HIREDATEV DATE;
```

```
SALV EMP.SAL%TYPE;

EXP NUMBER;

DNAMEV DEPT.DNAME%TYPE;

GRADEV SALGRADE.GRADE%TYPE;

BEGIN

SELECT ENAME,SAL,HIREDATE,DNAME,GRADE INTO ENAMEV,SALV,HIREDATEV,DNAMEV,GRADEV FROM
EMP,DEPT,SALGRADE

WHERE EMPNO=EMPNOV AND EMP.DEPTNO=DEPT.DEPTNO AND SAL BETWEEN LOSAL AND HISAL;

EXP:=ROUND(MONTHS_BETWEEN(SYSDATE,HIREDATEV)/12,3);

DBMS_OUTPUT.PUT_LINE('EMPNO '||EMPNOV);

DBMS_OUTPUT.PUT_LINE('ENAME '||ENAMEV);

DBMS_OUTPUT.PUT_LINE('SALARY '||SALV);

DBMS_OUTPUT.PUT_LINE('EXPERIENCE '||EXP||' YEARS');

DBMS_OUTPUT.PUT_LINE('DNAME '||DNAMEV);

DBMS_OUTPUT.PUT_LINE('GRADE '||GRADEV);

END;

/
```

84.WAP to accept the empno, based upon the dname transfer the emps ie, make the changes in the emp table. Transfer the emps from Accounting dept to Research, Research dept to Operation, Opertion dept to Sales

and Sales to Accounting dept

```
DECLARE

EMPNOV NUMBER:=&EMPNO;

DNAMEV VARCHAR2(20);

DNAMEVV VARCHAR2(20);

BEGIN

SELECT DNAME INTO DNAMEV FROM EMP,DEPT WHERE EMPNO=EMPNOV AND
EMP.DEPTNO=DEPT.DEPTNO;

IF DNAMEV='ACCOUNTING' THEN

DNAMEVV:='RESEARCH';

ELSIF DNAMEV='RESEARCH' THEN
```

```
DNAMEVV:='SALES';

ELSIF DNAMEV='SALES' THEN

DNAMEVV:='OPERATIONS';

ELSIF DNAMEV='OPERATIONS' THEN

DNAMEVV:='ACCOUNTING';

END IF;

UPDATE EMP SET DEPTNO=(SELECT DEPTNO FROM DEPT WHERE DNAME=DNAMEVV) WHERE
EMPNO=EMPNOV;

END;

/
```

85.WAP to accept the empno and display all the details of emp. If emp doesnot exist display the appreciate message

```
DECLARE

EMPNOV NUMBER:=&EMPNO;

EMPV EMP%ROWTYPE;

BEGIN

SELECT * INTO EMPV FROM EMP WHERE EMPNO=EMPNOV;

DBMS_OUTPUT.PUT_LINE('EMPNO '||EMPV.EMPNO);

DBMS_OUTPUT.PUT_LINE('ENAME '||EMPV.ENAME);

DBMS_OUTPUT.PUT_LINE('JOB '||EMPV.JOB);

DBMS_OUTPUT.PUT_LINE('SALARY '||EMPV.SAL);

DBMS_OUTPUT.PUT_LINE('HIREDATE '||EMPV.HIREDATE);

DBMS_OUTPUT.PUT_LINE('DEPTNO '||EMPV.DEPTNO);

DBMS_OUTPUT.PUT_LINE('MGRNO '||EMPV.MGR);

DBMS_OUTPUT.PUT_LINE('COMMISSION '||EMPV.COMM);

EXCEPTION

WHEN NO_DATA_FOUND THEN

DBMS_OUTPUT.PUT_LINE('EMP NUMBER DOES NOT EXIST');

END;
```

```
/
```

86.WAP to accept the empno and print all the details of emp,dept and salgrade

```
DECLARE
E EMP%ROWTYPE;
D DEPT%ROWTYPE;
S SALGRADE%ROWTYPE;
BEGIN
SELECT * INTO E FROM EMP WHERE EMPNO=&EMPNO;
SELECT * INTO D FROM DEPT WHERE E.DEPTNO=DEPT.DEPTNO;
SELECT * INTO S FROM SALGRADE WHERE E.SAL BETWEEN LOSAL AND HISAL;
DBMS_OUTPUT.PUT_LINE('EMPNO '||E.EMPNO);
DBMS_OUTPUT.PUT_LINE('DEPTNO '||D.DEPTNO);
DBMS_OUTPUT.PUT_LINE('DNAME '||D.DNAME);
DBMS_OUTPUT.PUT_LINE('LOCATION '||D.LOC);
DBMS_OUTPUT.PUT_LINE('GRADE '||S.GRADE);
DBMS_OUTPUT.PUT_LINE('HISALARY '||S.HISAL);
DBMS_OUTPUT.PUT_LINE('LOWSALARY '||S.LOSAL);
END;
/
```

87.WAP to accept the mgrno and display the empno,ename,sal,dname and grade of all emps working under that mgr

```
DECLARE
MGRV NUMBER:=&MGRV;
CURSOR EMPCUR IS
SELECT EMPNO,ENAME,SAL,DEPTNO,GRADE FROM EMP,SALGRADE WHERE MGR=MGRV AND SAL
BETWEEN LOSAL AND HISAL;
X EMPCUR%ROWTYPE;
BEGIN
OPEN EMPCUR;
LOOP
```

```
FETCH EMPCUR INTO X;
EXIT WHEN EMPCUR%NOTFOUND;
DBMS_OUTPUT.PUT_LINE('EMPNO '||X.EMPNO);
DBMS_OUTPUT.PUT_LINE('ENAME '||X.ENAME);
DBMS_OUTPUT.PUT_LINE('SALARY '||X.SAL);
DBMS_OUTPUT.PUT_LINE('DEPTNO '||X.DEPTNO);
DBMS_OUTPUT.PUT_LINE('GRADE '||X.GRADE);
DBMS_OUTPUT.PUT_LINE('******************');
END LOOP;
CLOSE EMPCUR;
END;
/
```

88.WAP to accept the empno and display the exp with minimum 3 decimal places

```
DECLARE
EMPNOV NUMBER:=&EMPNOV;
HIREDATEV DATE;
EXPV NUMBER(10,5);
BEGIN
SELECT HIREDATE INTO HIREDATEV FROM EMP WHERE EMPNO=EMPNOV;
EXPV:=ROUND(MONTHS_BETWEEN(SYSDATE,HIREDATEV)/12,3);
DBMS_OUTPUT.PUT_LINE('EXPERIENCE OF EMP'||EMPNOV||' IS '||EXPV||' YEARS ');
END;
/
```

89.Write a program to print the following series

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

```
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN 1..5
LOOP
FOR J IN 1..I
LOOP
V:=V||' '||J;
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
/
```

90.Write a program to print the following series

```
1
2 1
3 2 1
4 3 2 1
5 4 3 2 1
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN 1..5
LOOP
FOR J IN REVERSE 1..I
LOOP
V:=V||' '||J;
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
```

```
V:=NULL;
END LOOP;
END;
/
```

91.Write a program to print the following series

```
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN REVERSE 1..5
LOOP
FOR J IN 1..I
LOOP
V:=V||' '||J;
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
/
```

92.Write a program to print the following series

```
1 1 1 1 1
2 2 2 2 2
3 3 3 3 3
4 4 4 4 4
```

5 5 5 5 5

```
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN 1..5
LOOP
FOR J IN 1..5
LOOP
V:=V||' '||I;
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
/
```

93.Write a program to print the following series

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

```
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN 1..5
LOOP
FOR J IN 1..5
LOOP
V:=V||' '||J;
END LOOP;
```

```
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
/
```

94.Write a program to print the following series

```
5 4 3 2 1
5 4 3 2
5 4 3
5 4
5
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN 1..5
LOOP
FOR J IN REVERSE 1..5
LOOP
IF I<=J THEN
V:=V||' '||J;
END IF;
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
/
```

95.Write a program to print the following series

```
5 5 5 5 5
```

4 4 4 4

3 3 3

2 2

1

```
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN REVERSE 1..5
LOOP
FOR J IN 1..5
LOOP
IF I>=J THEN
V:=V||' '||I;
END IF;
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
/
```

96.Write a program to print the following series

1

2 2

3 3 3

4 4 4 4

5 5 5 5 5

```
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN 1..5
```

```
LOOP
FOR J IN 1..I
LOOP
V:=V||' '||I;
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
/
```

97.Write a program to print the following series

```
1
0 1
1 0 1
0 1 0 1
1 0 1 0 1
DECLARE
A NUMBER:=1;
V VARCHAR2(20):=1;
BEGIN
DBMS_OUTPUT.PUT_LINE(V);
FOR I IN 1..4
LOOP
IF SUBSTR(V,1,1)='1' THEN
V:='0'||V;
ELSE
V:='1'||V;
END IF;
DBMS_OUTPUT.PUT_LINE(V);
```

```
END LOOP;
END;
/
```

98.Write a program to print the following series

```
*
* *
* * *
* * * *
* * * * *
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN 1..5
LOOP
FOR J IN 1..I
LOOP
V:=V||' '||'*';
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
/
```

99.Write a program to print the following series

```
*
* *
* * *
* * * *
* * * * *
* * * *
```

```
* * *
* *
*
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN 1..5
LOOP
FOR J IN 1..I
LOOP
V:=V||' '||'*';
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
FOR I IN REVERSE 1..5
LOOP
FOR J IN 2..I
LOOP
V:=V||' '||'*';
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
/
```

100.Write a program to print the following series

```
1 2 3 4 5
2 3 4 5
```

3 4 5

4 5

5

```
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN 1..5
LOOP
FOR J IN I..5
LOOP
V:=V||' '||J;
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
/
```

101.Write a program to print the following series

5 4 3 2 1

4 3 2 1

3 2 1

2 1

1

```
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN REVERSE 1..5
LOOP
FOR J IN REVERSE 1..I
LOOP
```

```
V:=V||' '||J;

END LOOP;

DBMS_OUTPUT.PUT_LINE(V);

V:=NULL;

END LOOP;

END;

/
```

102.WAP to accept 2 nos and find the sum and product of the nos and print the output

```
DECLARE

A NUMBER:=&A;

B NUMBER:=&B;

S NUMBER;

M NUMBER;

BEGIN

S:=A+B;

M:=A*B;

DBMS_OUTPUT.PUT_LINE('SUM OF '||'A'||' AND '||'B'||' IS '||S);

DBMS_OUTPUT.PUT_LINE('PRODUCT OF '||'A'||' AND '||'B'||' IS '||M);

END;

/
```

103.WAP to accept 2 nos and find the remainder when the first number is divided by sencond(dont use mod function)

```
DECLARE

A NUMBER:=&A;

B NUMBER:=&B;

C NUMBER;

M NUMBER;

BEGIN

C:=TRUNC(A/B);
```

```
M:=A-C*B;
DBMS_OUTPUT.PUT_LINE('REMAINDER IS '||M);
END;
/
```

104.WAP to display all the ASCII characters 0-9--48-57,A-Z--65-90,a-z--97-122

```
BEGIN
FOR I IN 1..255
LOOP
DBMS_OUTPUT.PUT_LINE(I||'-'||CHR(I));
END LOOP;
END;
/
```

105.Print the following format

```
ORACLE
ORACL
ORAC
ORA
OR
O
DECLARE
STR VARCHAR2(10):='&STR';
L VARCHAR2(10);
N NUMBER(15);
BEGIN
N:=LENGTH(STR);
WHILE N>=1
LOOP
L:=SUBSTR(STR,1,N);
N:=N-1;
DBMS_OUTPUT.PUT_LINE(L);
```

```
END LOOP;

END;

/
```

106.WAP to display "GOOD MORNING" or "GOOD AFTERNOON" or "GOOD NIGHT" depending upon the current time

```
DECLARE

HH NUMBER;

BEGIN

HH:=TO_CHAR(SYSDATE,'HH24');

IF HH>6 AND HH<12 THEN

DBMS_OUTPUT.PUT_LINE('GOOD MORNING');

ELSIF HH>=12 AND HH<18 THEN

DBMS_OUTPUT.PUT_LINE('GOOD AFTERNOON');

ELSIF HH>=18 AND HH<25 THEN

DBMS_OUTPUT.PUT_LINE('GOOD NIGHT');

END IF;

END;

/
```

107.WAP to accept two strings and concat the two strings

```
DECLARE

STR VARCHAR2(20):='&STR';

STR1 VARCHAR2(20):='&STR1';

V VARCHAR2(40);

BEGIN

V:=STR||''||STR1;

DBMS_OUTPUT.PUT_LINE(V);

END;

/
```

108.WAP to accept a string and count the no of chars,words in that string

```
DECLARE
```

```
STR VARCHAR2(20):='&STR';
NOC NUMBER(4):=0;
NOW NUMBER(4):=1;
S CHAR;
BEGIN
FOR I IN 1..LENGTH(STR)
LOOP
S:=SUBSTR(STR,I,1);
NOC:=NOC+1;
IF S=' ' THEN
NOW:=NOW+1;
END IF;
END LOOP;
DBMS_OUTPUT.PUT_LINE('THE NO. OF CHARS '||NOC);
DBMS_OUTPUT.PUT_LINE('THE NO. OF WORDS '||NOW);
END;
/
```

109.WAP to accept the octal number and print it in decimal format

```
DECLARE
N VARCHAR2(20):='&N';
A NUMBER;
P NUMBER:=0;
C CHAR;
BEGIN
A:=LENGTH(N);
FOR I IN 1..A
LOOP
C:=SUBSTR(N,I,1);
P:=P+C*POWER(8,A-I);
```

```
END LOOP;
DBMS_OUTPUT.PUT_LINE('THE INTEGER OF A GIVEN OCTAL IS '||P);
END;
/
```

110.WAP to accept the mgr and find how many emps are working under that mgr

```
DECLARE
MGRV EMP.MGR%TYPE:=&MGRNO;
N NUMBER:=0;
BEGIN
SELECT COUNT(*) INTO N FROM EMP WHERE MGR=MGRV;
DBMS_OUTPUT.PUT_LINE('NUMBER OF EMPLOYEE UNDER THAT MANAGER ARE '||N);
END;
/
```

111.WAP to accept the empno and update the employee row on the following

If sal < 2600 then sal=sal+10% of sal make the changes in the emp table

```
DECLARE
EMPNOV EMP.EMPNO%TYPE:=&EMPNO;
SALV NUMBER(7,2):=0;
BEGIN
SELECT SAL INTO SALV FROM EMP WHERE EMPNO=EMPNOV;
IF SALV < 2600 THEN
SALV:=SALV+SALV*(10/100);
END IF;
UPDATE EMP SET SAL=SALV WHERE EMPNO=EMPNOV;
DBMS_OUTPUT.PUT_LINE('EMPNO IS '||EMPNOV);
DBMS_OUTPUT.PUT_LINE('SAL IS '||SALV);
END;
/
```

112.Write the floyd's triangle

```
1
```

```
2 3

4 5 6

7 8 9 10

11 12 13 14 15

16 17 18 19 20 21

..............

79.............91

DECLARE

N NUMBER:=1;

V VARCHAR2(100);

BEGIN

FOR I IN 1..92

LOOP

FOR J IN 1..I

LOOP

V:=V||' '||N;

N:=N+1;

EXIT WHEN N=92;

END LOOP;

DBMS_OUTPUT.PUT_LINE(V);

EXIT WHEN N=92;

V:=NULL;

END LOOP;

END;

/
```

113.WAP to accept the real value and print integer value only

```
DECLARE

N NUMBER(7,3):=&N;

A NUMBER(5);
```

```
BEGIN
A:=TRUNC(N);
DBMS_OUTPUT.PUT_LINE('REAL VALUE IS '||A);
END;
/
```

114.WAP to calculate the sum of n odd factorials

```
DECLARE
N NUMBER:=&N;
S NUMBER:=0;
F NUMBER:=1;
BEGIN
FOR I IN 1..N
LOOP
IF MOD(I,2)!=0 THEN
FOR J IN 1..I
LOOP
F:=F*J;
END LOOP;
S:=S+F;
F:=1;
END IF;
END LOOP;
DBMS_OUTPUT.PUT_LINE('SUM '||S);
END;
/
```

115.WAP to calculate the sum of n even factorials

```
DECLARE
N NUMBER:=&N;
S NUMBER:=0;
F NUMBER:=1;
```

```
BEGIN
FOR I IN 1..N
LOOP
IF MOD(I,2)=0 THEN
FOR J IN 1..I
LOOP
F:=F*J;
END LOOP;
S:=S+F;
F:=1;
END IF;
END LOOP;
DBMS_OUTPUT.PUT_LINE('SUM '||S);
END;
/
```

116.WAP to generate the nos which are prime and odd between 1 and 100

```
DECLARE
N NUMBER;
CNT NUMBER:=0;
BEGIN
FOR I IN 1..100
LOOP
FOR J IN 1..I
LOOP
IF MOD(I,J)=0 THEN
CNT:=CNT+1;
END IF;
END LOOP;
IF CNT <= 2 THEN
```

```
IF MOD(I,2)!=0 THEN
DBMS_OUTPUT.PUT_LINE(I);
END IF;
END IF;
CNT:=0;
END LOOP;
END;
/
```

117.Write a program to generate following series

```
12
12 22
12 22 32
12 22 32 42
12 22 32 42 52
DECLARE
V VARCHAR2(20);
BEGIN
FOR I IN 1..5
LOOP
FOR J IN 1..I
LOOP
V:=V||' '||J||CHR(178);
END LOOP;
DBMS_OUTPUT.PUT_LINE(V);
V:=NULL;
END LOOP;
END;
/
```

118.Find the roots of a quadratic equation

```
DECLARE
```

```
A NUMBER(4):=&A;

B NUMBER(4):=&B;

C NUMBER(4):=&C;

D NUMBER(8,2);

R1 NUMBER(8,2);

R2 NUMBER(8,2);

BEGIN

D:=POWER(B,2)-4*A*C;

IF D = 0 THEN

DBMS_OUTPUT.PUT_LINE('ROOTS ARE EQUAL');

ELSIF D > 0 THEN

R1:=(-B+SQRT(D))/2*A;

R2:=(-B-SQRT(D))/2*A;

DBMS_OUTPUT.PUT_LINE('FIRST ROOT IS '||R1);

DBMS_OUTPUT.PUT_LINE('SECOND ROOT IS '||R2);

ELSE

DBMS_OUTPUT.PUT_LINE('ROOTS ARE IMAGINARY');

END IF;

END;

/
```

119.WAP to accept the 2 diff nos, assume that first one is smaller and second one is highest value then print the all even nos in between them horizontally

```
DECLARE

A NUMBER:=&A;

B NUMBER:=&B;

V VARCHAR2(100);

BEGIN

FOR I IN A..B

LOOP

IF MOD(I,2)=0 THEN
```

```
V:=V||' '||I;

END IF;

END LOOP;

DBMS_OUTPUT.PUT_LINE(V);

END;

/
```

120.WAP to accept two diff nos assume that first one is smaller and second one is highest value then print the all odd nos in between them horizontally

```
DECLARE

A NUMBER:=&A;

B NUMBER:=&B;

V VARCHAR2(100);

BEGIN

FOR I IN A..B

LOOP

IF MOD(I,2)!=0 THEN

V:=V||' '||I;

END IF;

END LOOP;

DBMS_OUTPUT.PUT_LINE(V);

END;

/
```