**LOOPS**

**Problem #1**

set serveroutput on

declare

v\_recno number(4);

ctr\_no number(2) := 0;

begin

loop

ctr\_no := ctr\_no + 1;

v\_recno := ctr\_no + ctr\_no;

if ctr\_no > 5 then

exit;

end if;

dbms\_output.put\_line(ctr\_no||'+'|| ctr\_no || '='|| v\_recno );

end loop;

end;

/ **SQL> @ mathfacts**

1+1=2

2+2=4

3+3=6

4+4=8

5+5=10

PL/SQL procedure successfully completed.

**Problem #2**

set serveroutput on

declare

v\_recno number(4);

ctr\_no number(2) := 0;

begin

**for i in 1..5 loop**

ctr\_no := ctr\_no + 1;

v\_recno := ctr\_no + ctr\_no;

dbms\_output.put\_line( i|| ' '||ctr\_no||'+'|| ctr\_no || '='|| v\_recno );

end loop;

end;

/

set serveroutput off

**SQL> @ mathfacts**

1 1+1=2

2 2+2=4

3 3+3=6

4 4+4=8

5 5+5=10

PL/SQL procedure successfully completed.

**Problem #3**

set serveroutput on

declare

v\_recno number(4);

ctr\_no number(2) := 0;

begin

**while** ctr\_no < 6 loop

ctr\_no := ctr\_no + 1;

v\_recno := ctr\_no + ctr\_no;

dbms\_output.put\_line(ctr\_no||'+'|| ctr\_no || '='|| v\_recno );

end loop;

end;

/

set serveroutput off

**SQL> @ mathfacts**

1+1=2

2+2=4

3+3=6

4+4=8

5+5=10

6+6=12

PL/SQL procedure successfully completed.

**Problem #4**

set serveroutput on

declare

recno number(4) := 1;

ctr\_no number(2) := 0;

total number(2) := 0;

begin

while recno <= 4 loop

while ctr\_no < 4 loop

ctr\_no := ctr\_no + 1;

total := recno + ctr\_no;

dbms\_output.put\_line(recno||'+'|| ctr\_no || '='|| total );

end loop;

recno := recno + 1;

ctr\_no := 0;

end loop;

end;

/

set serveroutput off

SQL> @ mathfacts

1+1=2

1+2=3

1+3=4

1+4=5

2+1=3

2+2=4

2+3=5

2+4=6

3+1=4

3+2=5

3+3=6

3+4=7

4+1=5

4+2=6

4+3=7

4+4=8

PL/SQL procedure successfully completed.

**Problem #5**

set serveroutput on

declare

recno number(4) := 1;

ctr\_no number(2) := 0;

total number(2) := 0;

begin

loop

loop

ctr\_no := ctr\_no + 1;

total := recno + ctr\_no;

if ctr\_no > 4 then

exit;

end if;

dbms\_output.put\_line(recno||'+'|| ctr\_no || '='|| total );

end loop;

recno := recno + 1;

ctr\_no := 0;

if recno > 4 then

exit;

end if;

end loop;

end;

/

set serveroutput off

**Problem #6**

set serveroutput on

declare

recno number(4) := 1;

ctr\_no number(2) := 0;

total number(2) := 0;

begin

**for i in 1..4 loop**

**for i in 1..4 loop**

ctr\_no := ctr\_no + 1;

total := recno + ctr\_no;

dbms\_output.put\_line(recno||'+'|| ctr\_no || '='|| total );

**end loop;**

recno := recno + 1;

ctr\_no := 0;

**end loop;**

end;

/

set serveroutput off

SQL> @ mathfacts

1+1=2

1+2=3

1+3=4

1+4=5

2+1=3

2+2=4

2+3=5

2+4=6

3+1=4

3+2=5

3+3=6

3+4=7

4+1=5

4+2=6

4+3=7

4+4=8

**Problem #7**

set serveroutput on

declare

item\_price number(4) := 5;

to\_spend number(2) := 50;

ctr\_no number(2) := 0;

begin

while to\_spend >= item\_price loop

ctr\_no := ctr\_no + 1;

to\_spend := to\_spend - item\_price;

end loop;

dbms\_output.put\_line(ctr\_no||' items');

end;

/

set serveroutput off

SQL> **@ item**

10 items

**Problem #8**

set verify off

set serveroutput on

declare

a\_idno donor\_bk.idno%type := &input\_id;

a\_amt number (9,2);

new\_amt number (9,2);

ctr number(2) := 0;

begin

select idno, yrgoal into

a\_idno, a\_amt

from donor\_bk

where idno = a\_idno;

for i in 1..4 loop

if a\_amt > 500 then

new\_amt := (a\_amt \* 2)\* .25;

ctr := ctr + 1;

else

new\_amt := (a\_amt + a\_amt\*.5)\*.25;

ctr := ctr + 1;

end if;

insert into amttopay(rec\_no, d\_idno, amt)

values(ctr, a\_idno, new\_amt);

end loop;

commit;

end;

/

set serveroutput off

set verify on

SQL> **@ pay**

Enter value for input\_id: 11111

PL/SQL procedure successfully completed.

SQL> **select \* from amttopay;**

REC\_NO D\_IDN AMT

---------- ----- ----------

1 12121 161.25

2 12121 161.25

3 12121 161.25

4 12121 161.25

1 11111 180

2 11111 180

3 11111 180

4 11111 180

8 rows selected.