

SINGLE ROW FUNCTIONS

1) Numeric

Abs: 'ABSOLUTE'-gives you the positive number in return

```
SQL> select abs(5) from dual;

ABS(5)
-----
5

SQL> select abs(-5) from dual;

ABS(-5)
-----
5

SQL>
```

Ceil :-gives you the greater whole number of the given specified number

```
Run SQL Command Line

SQL> select ceil(12) from dual;

CEIL(12)
-----
12

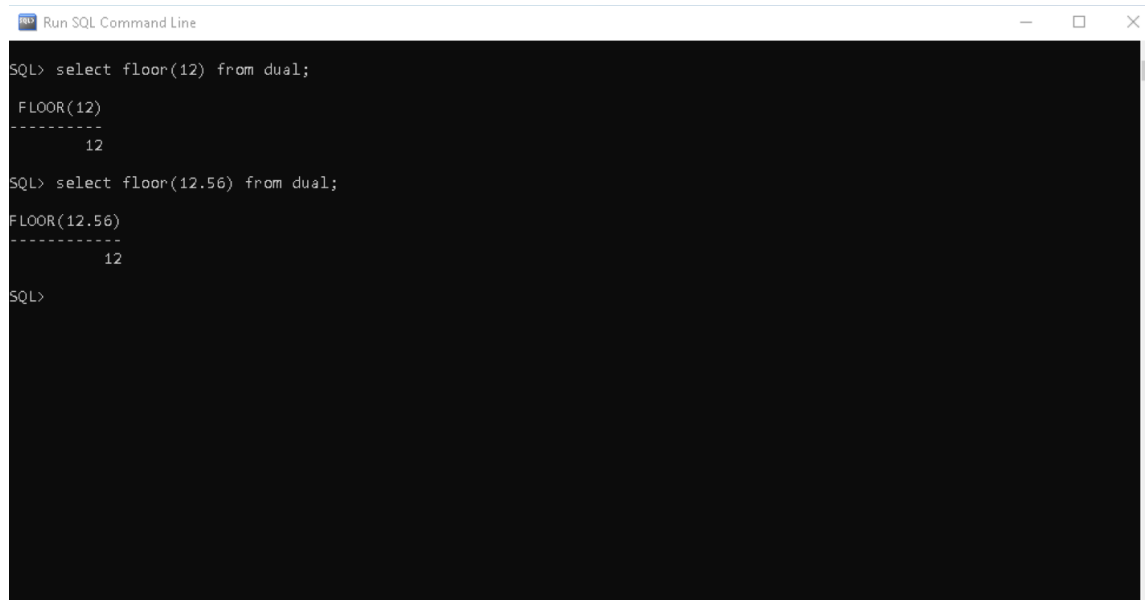
SQL> select ceil(12.56) from dual;

CEIL(12.56)
-----
13

SQL>
```

Floor:-gives you the smaller whole number of the given specified number

CEIL and FLOOR specially works on decimal numbers

A screenshot of a 'Run SQL Command Line' window. It shows two SQL queries and their results. The first query is 'select floor(12) from dual;', which returns 'FLOOR(12)' and '12'. The second query is 'select floor(12.56) from dual;', which returns 'FLOOR(12.56)' and '12'.

```
SQL> select floor(12) from dual;

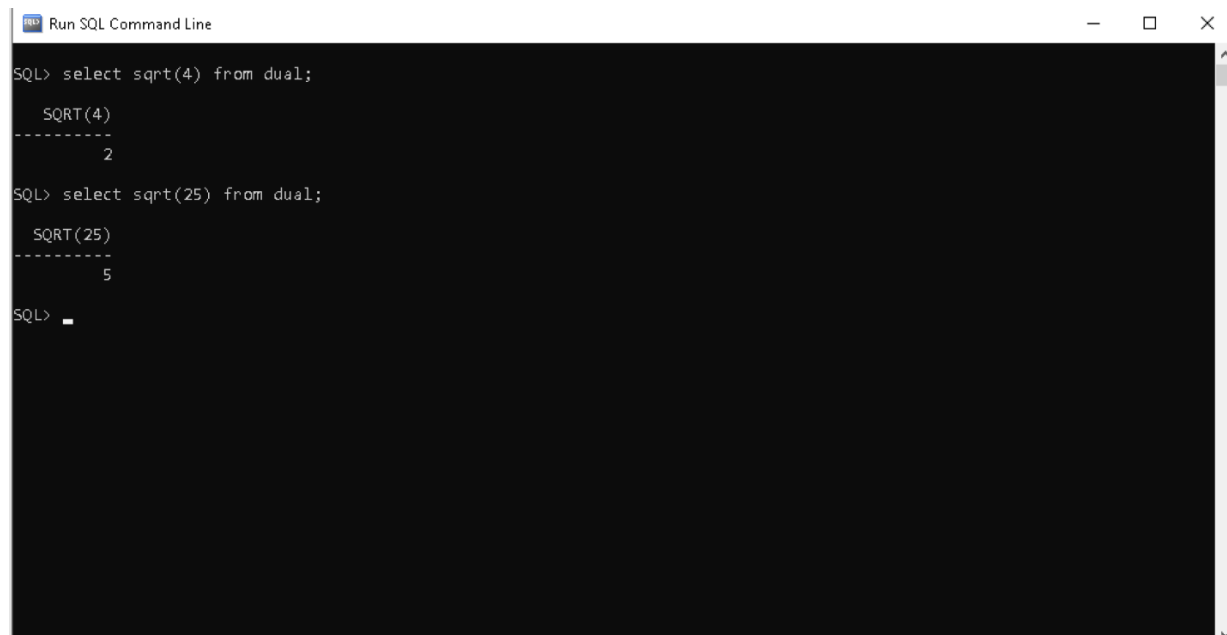
FLOOR(12)
-----
12

SQL> select floor(12.56) from dual;

FLOOR(12.56)
-----
12

SQL>
```

SQRT: 'SQUARE ROOT'-gives you the square root of a given number

A screenshot of a 'Run SQL Command Line' window. It shows two SQL queries and their results. The first query is 'select sqrt(4) from dual;', which returns 'SQRT(4)' and '2'. The second query is 'select sqrt(25) from dual;', which returns 'SQRT(25)' and '5'.

```
SQL> select sqrt(4) from dual;

SQRT(4)
-----
2

SQL> select sqrt(25) from dual;

SQRT(25)
-----
5

SQL>
```

MOD:-gives the remainder of the given numbers and it takes two parameters

A screenshot of a 'Run SQL Command Line' window. The window has a title bar with a small icon and the text 'Run SQL Command Line'. The main area is black with white text. It shows two SQL queries and their results. The first query is 'SQL> select mod(16,2) from dual;'. The result is 'MOD(16,2)' followed by a dashed line and the value '0'. The second query is 'SQL> select mod(12,4) from dual;'. The result is 'MOD(12,4)' followed by a dashed line and the value '0'. The prompt 'SQL>' is followed by a cursor.

```
SQL> select mod(16,2) from dual;

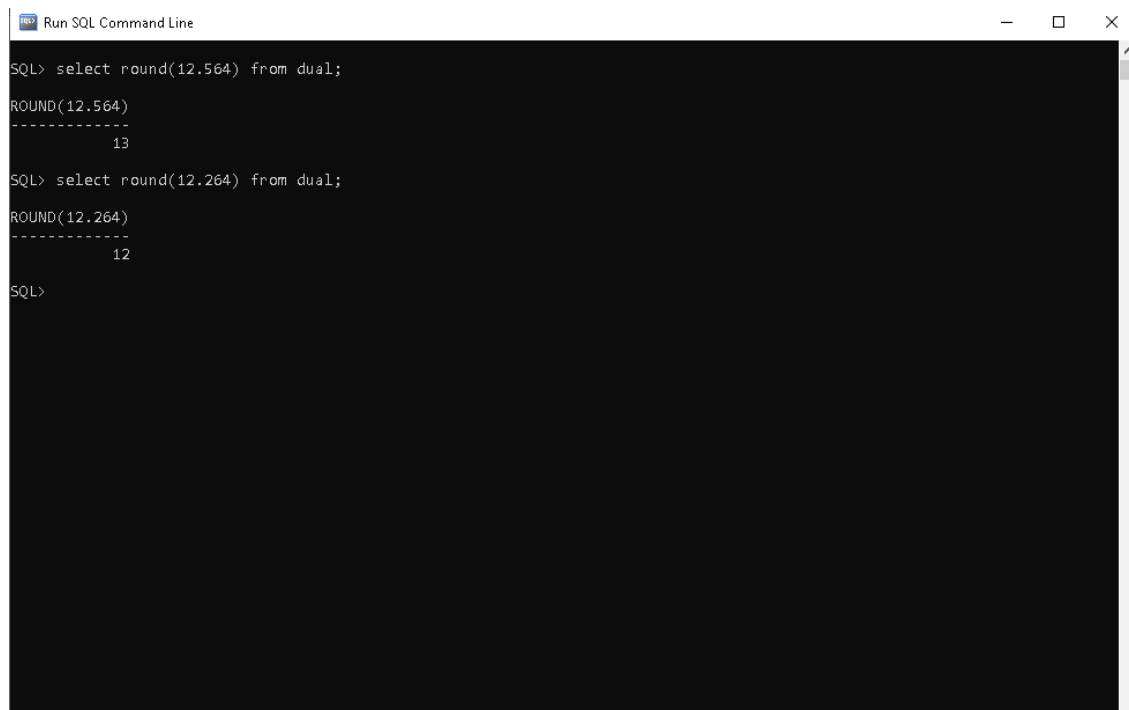
MOD(16,2)
-----
0

SQL> select mod(12,4) from dual;

MOD(12,4)
-----
0

SQL> 
```

ROUND:-gives you the round off of the number

A screenshot of a 'Run SQL Command Line' window. The window has a title bar with a small icon and the text 'Run SQL Command Line'. The main area is black with white text. It shows two SQL queries and their results. The first query is 'SQL> select round(12.564) from dual;'. The result is 'ROUND(12.564)' followed by a dashed line and the value '13'. The second query is 'SQL> select round(12.264) from dual;'. The result is 'ROUND(12.264)' followed by a dashed line and the value '12'. The prompt 'SQL>' is followed by a cursor.

```
SQL> select round(12.564) from dual;


ROUND(12.564)
-----
13

SQL> select round(12.264) from dual;

ROUND(12.264)
-----
12

SQL> 
```

REMAIDER: gives the remainder of the given numbers and it takes two parameters



```
Run SQL Command Line

SQL> select remainder(5,2) from dual;

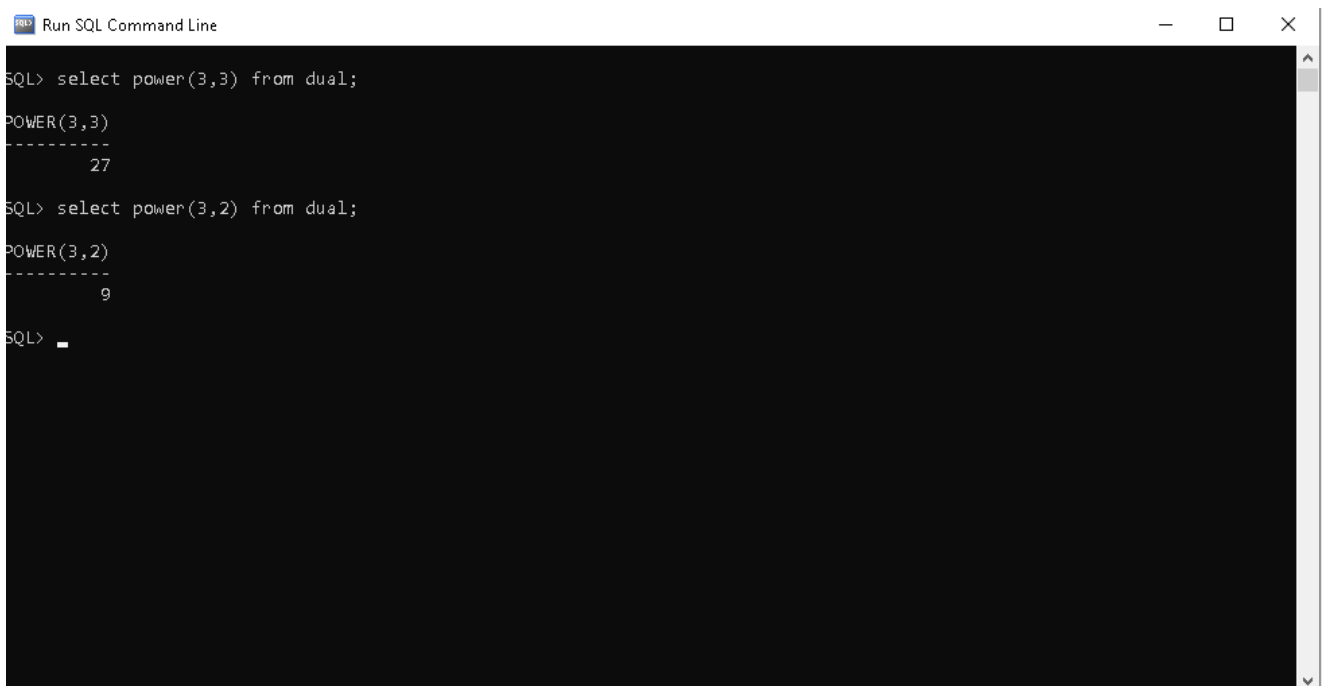
REMAINDER(5,2)
-----
1

SQL> select remainder(2,2) from dual;

REMAINDER(2,2)
-----
0

SQL>
```

POWER: gives you the power of the given number



```
Run SQL Command Line

SQL> select power(3,3) from dual;

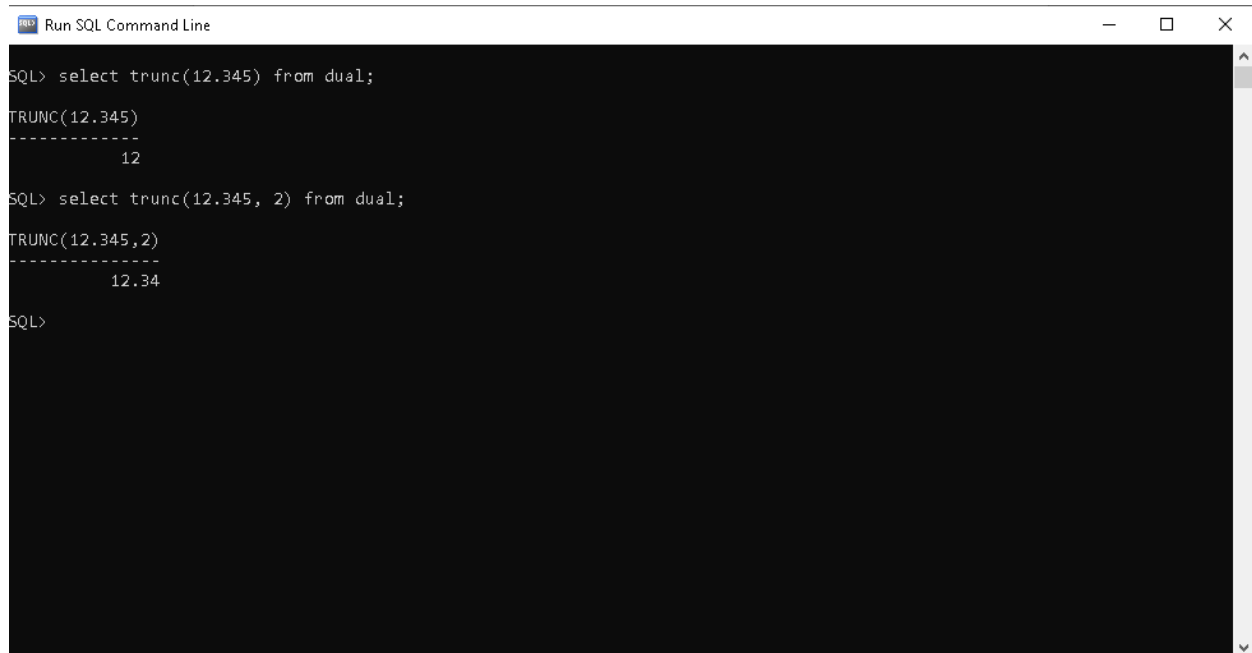
POWER(3,3)
-----
27

SQL> select power(3,2) from dual;

POWER(3,2)
-----
9

SQL>
```

TRUNC: ‘TRUNCET’-eliminate the values after decimal



The screenshot shows a 'Run SQL Command Line' window with a black background and white text. It displays two SQL queries and their results. The first query is 'select trunc(12.345) from dual;', which returns '12'. The second query is 'select trunc(12.345, 2) from dual;', which returns '12.34'. The prompt 'SQL>' is visible at the end of the line.

```
SQL> select trunc(12.345) from dual;

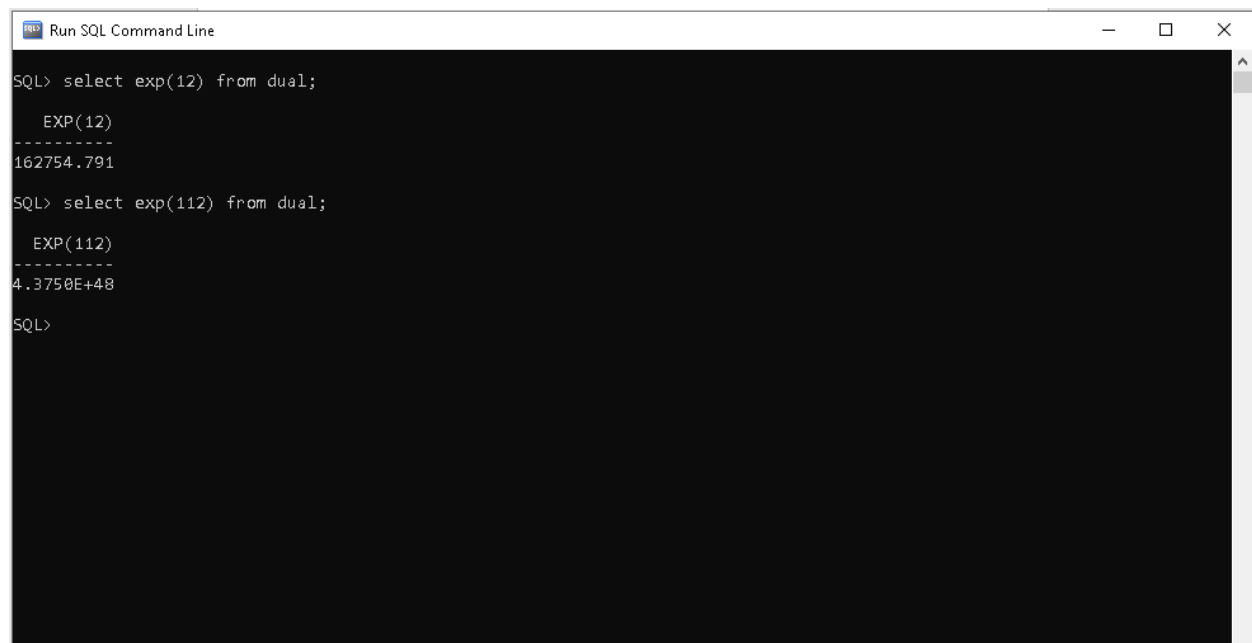
TRUNC(12.345)
-----
          12

SQL> select trunc(12.345, 2) from dual;

TRUNC(12.345,2)
-----
          12.34

SQL>
```

EXP: gives you the exponential of the number



The screenshot shows a 'Run SQL Command Line' window with a black background and white text. It displays two SQL queries and their results. The first query is 'select exp(12) from dual;', which returns '162754.791'. The second query is 'select exp(112) from dual;', which returns '4.3750E+48'. The prompt 'SQL>' is visible at the end of the line.

```
SQL> select exp(12) from dual;

EXP(12)
-----
162754.791


SQL> select exp(112) from dual;

EXP(112)
-----
4.3750E+48

SQL>
```

2) Character

Lower: makes the string to lowercase



```
Run SQL Command Line

SQL> select lower('MY NAME IS IMRAN') from dual;

LOWER('MYNAMEISI
-----
my name is imran

SQL> select lower('tHis is mY DbmS ProJEct') from dual;

LOWER('THISISMYDBMSPROJ
-----
this is my dbms project

SQL>
```

Upper : makes the string to uppercase



```
Run SQL Command Line

SQL> select upper('my name is imran') from dual;

UPPER('MYNAMEISI
-----
MY NAME IS IMRAN

SQL> select upper('tHis is mY DbmS ProJEct') from dual;

UPPER('THISISMYDBMSPROJ
-----
THIS IS MY DBMS PROJECT

SQL>
```

Initcap: makes the first letter capital

```
Run SQL Command Line
SQL> select initcap('i am imRan') from dual;

INITCAP('I
-----
I Am Imran

SQL>
```

Length: display the total length of the given string

```
Run SQL Command Line
SQL> select length('Hi Im Imran') from dual;

LENGTH('HIIMIMRAN')
-----
11

SQL>
```

Substr: takes three parameters and display specific string part

```
Run SQL Command Line
SQL> select substr('Imran Rizwan Shaikh',1, 6)from dual;

SUBSTR
-----
Imran
```

Concat: used to joins the given different string

```
SQL> select concat('How are you',' Maam') from dual;

CONCAT('HOWAREYOU
-----
How are you Maam
```

Instr: used to finds the given word in string

```
SQL> select instr('How are you Maam','are') from dual;

INSTR('HOWAREYOUAAM','ARE')
-----
5
```

Trim: reduces the spaces in the string

```
Run SQL Command Line

SQL> select trim(leading' ' from '   How are you Maam') from dual;

TRIM(LEADING' 'FR
-----
How are you Maam

SQL> select trim(both' ' from '   How are you Maam   ') from dual;

TRIM(BOTH' 'FROM'
-----
How are you Maam

SQL> select trim(trailing' ' from 'How are you Maam   ') from dual;

TRIM(TRAILING' 'F
-----
How are you Maam

SQL> _
```

RTRIM: reduces the spaces in the string from right

LTRIM: reduces the spaces in the string from left

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```
Run SQL Command Line

SQL> select rtrim ('How are you Maam      ') from dual;

RTRIM('HOWAREYOU
-----
How are you Maam

SQL> select rtrim ('How are you Maam      Im Imran  ') from dual;

RTRIM('HOWAREYOUAAMIMIMIRAN')
-----
How are you Maam      Im Imran

SQL> select ltrim ('      How are you Maam      Im Imran  ') from dual;

LTRIM('HOWAREYOUAAMIMIMIRAN')
-----
How are you Maam      Im Imran

SQL> select ltrim ('      I am Imran How are you all') from dual;

LTRIM('IAMIMRANHWAREYOUAL
-----
I am Imran How are you all

SQL> _
```

TRANSLATE: used to change the letter by new letter

REPLACE: used to replace the whole word

```
Run SQL Command Line

SQL> select translate('Imran is a good boy','iag','@#$$') from dual;

TRANSLATE('IMRANISA
-----
Imr#n @s # $ood boy

SQL> select replace('Imran is a good boy','oo','$$$') from dual;

REPLACE('IMRANISAGO
-----
Imran is a g$$$d boy

SQL>
```

RPAD: use to give space using symbols toward right

LPAD: use to give space using symbols towards left

```
Run SQL Command Line

SQL> select rpad('welcome',10,'#') from dual;

RPAD('WELC
-----
welcome###

SQL> select rpad('welcome',5,'#') from dual;

RPAD(
-----
welco

SQL> select rpad('welcome',15,'#') from dual;

RPAD('WELCOME',
-----
welcome#####

SQL> select lpad('welcome',15,'#') from dual;

LPAD('WELCOME',
-----
#####welcome

SQL> select lpad('welcome',10,'#') from dual;

LPAD('WELC
-----
###welcome

SQL>
```

3) Date Function

SYSDATE: display the current date

```
Run SQL Command Line

SQL> select sysdate from dual;

SYSDATE
-----
23-FEB-21

SQL> select extract( day from sysdate) from dual;

EXTRACT(DAYFROMSYSDATE)
-----
23

SQL> select extract( month from sysdate) from dual;

EXTRACT(MONTHFROMSYSDATE)
-----
2

SQL>
SQL> select extract( year from sysdate) from dual;

EXTRACT(YEARFROMSYSDATE)
-----
2021

SQL>
```

NEXT_DAY: used to find next days

```
Run SQL Command Line

SQL> select next_day(sysdate, 'sunday') from dual;

NEXT_DAY(
-----
28-FEB-21

SQL> select next_day(sysdate, 'Friday') from dual;

NEXT_DAY(
-----
26-FEB-21

SQL>
```

LAST_DAY: used to find last day

```
Run SQL Command Line

SQL> select last_day(sysdate) from dual;

LAST_DAY(
-----
28-FEB-21

SQL> _
```

ADD_MONTHS: used to increase the months

```
Run SQL Command Line

SQL> select add_months(sysdate, 3) from dual;

ADD_MONTH
-----
23-MAY-21

SQL> select add_months(sysdate, 8) from dual;

ADD_MONTH
-----
23-OCT-21

SQL>
```

MONTHS_BETWEEN: used to find number of months between two dates

```
Run SQL Command Line

SQL> select months_between('25-Apr-22', sysdate) from dual;

MONTHS_BETWEEN('25-APR-22',SYSDATE)
-----
14.0408841

SQL> select months_between('23-Dec-21', sysdate) from dual;

MONTHS_BETWEEN('23-DEC-21',SYSDATE)
-----
10

SQL> _
```

SYSTIMESTAMP: used to set time format

```
Run SQL Command Line

SQL> select systimestamp from dual;

SYSTIMESTAMP
-----
24-FEB-21 04.15.43.178000 PM +05:30

SQL> _
```

CURRENT_DATE: used to know current date

```
Run SQL Command Line

SQL> select current_date from dual;

CURRENT_D
-----
24-FEB-21

SQL> _
```