NUMBER FUNCTIONS

Number functions operate on values of number class datatype. These functions accept and return just numeric values. Most of these function return values that are accurate to 38 decimal digits. Some of the built-in number functions are:

Single-row Number Functions

ABS	LOG	CEIL	FLOOR
MOD	ROUND	POWER	SQRT
TRUNCATE	SIGN	SIN	COS

Number Functions

Examples

Number functions accept numeric input and return numeric value. This section describes some of the number functions.

ROUND: Rounds value to specified decimal

ROUND(45.926, 2)   "   45.93

TRUNC: Truncates value to specified decimal

TRUNC(45.926, 2)   45.92

MOD: Returns remainder of division

MOD(1600, 300)   ------------------*   100

Using the ROUND Function

SELECT   ROUND (45923 , 2) ,   ROUND (45923, 0) ,

ROUND(45923, -1) , ROUND(45923, -2)

FROM   DUAL ;

ROUND(45923,2)	ROUND(45923,0)	ROUND(45923,-1)	ROUND(45923,-2)
45923	45923	45920	45900

ROUND Function

"The ROUND function rounds the column. expression, or value to n decimal places. If the second argument is 0 or is missing, the value is rounded to zero decimal places. If the second argument is 2, the value is rounded to two decimal places. Conversely, if the second argument is -2, the value is rounded to two decimal places to the left.

The ROUND function can also be used vuth date functions You will see examples later in this lesson.

The DUAL is a dummy table. More about this will be covered later.

Using the ROUND Function (Continued)

SELECT   ROUND (45.923 , 2) ,   ROUND (45.923, 0) ,
ROUND(45.923, -1), ROUND(45.923, -2)
FROM DUAL ;

ROUND(45.923,2)	ROUND(45.923,0)	ROUND(45.923,-1)	ROUND(45.923,-2)
45,92	46	50	0

Using the TRUNC Function

SELECT TRUNC (45.923 , 2) , TRUNC (45.923),

TRUNC (45.323 , -1), TRUNC (45.923 , -3)

FROM dual;

TRUNC(45.923,2)	TRUNC(45.923)	TRUNC(45.323,-1)	TRUNC(45.923,-3)
45,92	45	40	0

TRUNC Function

The TRUNC function truncates the column. expression. or value to n decimal places.

The TRUNC function works with argument similar to those of the ROUND function. If the second argument is 0 or is missing, the value is truncated to zero decimal places. If the second argument is 2 the value is truncated to two decimal places. Conversely, if the second argument is -2, the value is truncated to two decimal places to the left.

Like the ROUND fuuction, the TRUNC fimction can be used with date functions.

Using the MOD Function

Calculate the remainder of the ratio of salary to commission for ali employees vvhose job title is salesman.

SELECT ename, sal, comm, MOD **(sal,** comm)

FROM emp

WHERE job = 'SALESMAN';

ENAME	SAL	COMM	MOD(SAL,COMM)
ALLEN	1600	300	100
WARD	1250	500	250
MARTIN	1250	1400	1250
TURNER	1500	0	1500

MOD Function

The MOD function finds the remainder of valuel divided by value2. The slide example calculates the remainder of the ralio of salary to commission for all employees those job title is salesman.

Using the MOD Function

SELECT MOD(17,5) "Modula"
FROM DUAL ;

Modula
2

Using the ABS Function

SELECT ABS(357) , ABS(-357) , ABS (357.38) ,ABS (-357.38)
FROM dual ;

ABS(357)	ABS(-357)	ABS(357.38)	ABS(-357.38)
357	357	357,38	357,38

SELECT ROUND (125.847 , 2) r,

TRUNC (125.847 , 2) t ,

FLOOR (125.847) f,

CEIL (125.847) c,

POWER(2,8) p ,

SIGN(-123.654) sgn,

SQRT(25) x, SQRT(256.25) y

FROM dual ;

R	T	F	C	P	SGN	X	Y
125,85	125,84	125	126	256	-1	5	16,0078106