

Oracle SQL Functions with Examples

Numeric Functions

Function	Description	Example	Output
ABS(x)	Returns absolute value	SELECT ABS(-25) FROM DUAL;	25
CEIL(x)	Rounds number up	SELECT CEIL(12.3) FROM DUAL;	13
FLOOR(x)	Rounds number down	SELECT FLOOR(12.9) FROM DUAL;	12
MOD(x,y)	Remainder of division	SELECT MOD(10,3) FROM DUAL;	1
POWER(x,y)	x raised to y	SELECT POWER(2,3) FROM DUAL;	8
ROUND(x,y)	Rounds number to y decimals	SELECT ROUND(15.678,2) FROM DUAL;	15.68
TRUNC(x,y)	Truncates number	SELECT TRUNC(15.678,1) FROM DUAL;	15.6
SQRT(x)	Square root	SELECT SQRT(49) FROM DUAL;	7

Character / Text Functions

Function	Description	Example	Output
UPPER(x)	To uppercase	SELECT UPPER('hello') FROM DUAL;	HELLO
LOWER(x)	To lowercase	SELECT LOWER('HELLO') FROM DUAL;	hello
INITCAP(x)	Capitalizes words	SELECT INITCAP('fast university') FROM DUAL;	Fast University
LENGTH(x)	Counts characters	SELECT LENGTH('Oracle') FROM DUAL;	6
SUBSTR(x,m,n)	Extracts substring	SELECT SUBSTR('Database',2,4) FROM DUAL;	atab
INSTR(x,sub)	Finds substring position	SELECT INSTR('Database','a') FROM DUAL;	2
LPAD(x,n,'char')	Left pad	SELECT LPAD('SQL',6,'*') FROM DUAL;	***SQL
RPAD(x,n,'char')	Right pad	SELECT RPAD('SQL',6,'*') FROM DUAL;	SQL***
CONCAT(x,y)	Concatenate strings	SELECT CONCAT('Data','Base') FROM DUAL;	DataBase
REPLACE(x,old,new)	Replace text	SELECT REPLACE('Database','base','store') FROM DUAL;	Datastore

Date Functions

Function	Description	Example	Output
SYSDATE	Current system date	SELECT SYSDATE FROM DUAL;	08-OCT-25
ADD_MONTHS(x,n)	Adds months	SELECT ADD_MONTHS('16-SEP-81',3) FROM DUAL;	16-DEC-81
MONTHS_BETWEEN(x1,x2)	Months difference	SELECT MONTHS_BETWEEN('16-DEC-81','16-SEP-81') FROM DUAL;	-3
NEXT_DAY(x,day)	Next weekday	SELECT NEXT_DAY('01-JUN-08','WEDNESDAY') FROM DUAL;	04-JUN-08
LAST_DAY(x)	Last day of month	SELECT LAST_DAY('01-JUN-08') FROM DUAL;	30-JUN-08
ROUND(x,fmt)	Round date	SELECT ROUND(SYSDATE,'MONTH') FROM DUAL;	01-OCT-25

TRUNC(x,fmt)	Truncate date	SELECT TRUNC(SYSDATE,'YEAR') FROM DUAL;	2025-JAN-25
NEW_TIME(x,z1,z2)	Convert timezone	SELECT NEW_TIME(SYSDATE,'ISL','EST') FROM DUAL;	2025-01-25 11:00:00 AM (Adjusted)

Conversion Functions

Function	Description	Example	Output
TO_CHAR(x,fmt)	Convert to string	SELECT TO_CHAR(SYSDATE,'DD-MON-YYYY') FROM DUAL;	08-FEB-2025
TO_NUMBER(x)	Convert to number	SELECT TO_NUMBER('12345')+5 FROM DUAL;	12350
TO_DATE(x,fmt)	Convert to date	SELECT TO_DATE('16-SEP-81','DD-MON-YY') FROM DUAL;	16-SEP-81
NVL(x,val)	Replace NULL	SELECT NVL(commission_pct,0) FROM employees;	0.12 (or null)
NVL2(x,v1,v2)	Conditional replace	SELECT NVL2(commission_pct,'YES','NO') FROM employees;	YES/NO

Aggregate (Group) Functions

Function	Description	Example	Output
AVG()	Average value	SELECT AVG(salary) FROM employees;	
SUM()	Total value	SELECT SUM(salary) FROM employees;	
MIN()	Minimum value	SELECT MIN(salary) FROM employees;	
MAX()	Maximum value	SELECT MAX(salary) FROM employees;	
COUNT()	Count rows	SELECT COUNT(*) FROM employees;	
STDDEV()	Standard deviation	SELECT STDDEV(salary) FROM employees;	
VARIANCE()	Variance	SELECT VARIANCE(salary) FROM employees;	