

总结归纳：110个Oracle常用函数的总结(10) PDF转换可能丢失图片或格式，建议阅读原文

https://www.100test.com/kao_ti2020/239/2021_2022__E6_80_BB_E7_BB_93_E5_BD_92_E7_c102_239003.htm 91。REGR_ (Linear Regression) Functions 功能描述：这些线性回归函数适合最小二乘法回归线，有9个不同的回归函数可使用。REGR_SLOPE

：返回斜率，等于 $\text{COVAR_POP}(\text{expr1}, \text{expr2}) / \text{VAR_POP}(\text{expr2})$

REGR_INTERCEPT：返回回归线的y截距，等于 $\text{AVG}(\text{expr1}) - \text{REGR_SLOPE}(\text{expr1}, \text{expr2}) * \text{AVG}(\text{expr2})$

REGR_COUNT：返回用于填充回归线的非空数字对的数目

REGR_R2：返回回归线的决定系数，计算式为：
If $\text{VAR_POP}(\text{expr2}) = 0$ then return NULL
If $\text{VAR_POP}(\text{expr1}) = 0$ and $\text{VAR_POP}(\text{expr2}) \neq 0$ then return 1
If $\text{VAR_POP}(\text{expr1}) > 0$ and $\text{VAR_POP}(\text{expr2}) \neq 0$ then return

$\text{POWER}(\text{CORR}(\text{expr1}, \text{expr2}), 2)$

REGR_AVGX：计算回归线的自变量(expr2)的平均值，去掉了空对(expr1, expr2)后，等于 $\text{AVG}(\text{expr2})$

REGR_AVGY：计算回归线的应变变量(expr1)的平均值，去掉了空对(expr1, expr2)后，等于 $\text{AVG}(\text{expr1})$

REGR_SXX：返回值等于 $\text{REGR_COUNT}(\text{expr1}, \text{expr2}) * \text{VAR_POP}(\text{expr2})$

REGR_SYY：返回值等于 $\text{REGR_COUNT}(\text{expr1}, \text{expr2}) * \text{VAR_POP}(\text{expr1})$

REGR_SXY：返回值等于 $\text{REGR_COUNT}(\text{expr1}, \text{expr2}) * \text{COVAR_POP}(\text{expr1}, \text{expr2})$ (下面的例子都是在SH用户下完成的)

SAMPLE 1：下例计算1998年最后三个星期中两种产品(260和270)在周末的销售量中已开发票数量和总数量的累积斜率和回归线的截距

SELECT t.fiscal_month_number

```
"Month", t.day_number_in_month "Day",
REGR_SLOPE(s.amount_sold, s.quantity_sold) OVER (ORDER
BY t.fiscal_month_desc, t.day_number_in_month) AS
CUM_SLOPE, REGR_INTERCEPT(s.amount_sold,
s.quantity_sold) OVER (ORDER BY t.fiscal_month_desc,
t.day_number_in_month) AS CUM_ICPT FROM sales s, times
t WHERE s.time_id = t.time_id AND s.prod_id IN (270, 260) AND
t.fiscal_year=1998 AND t.fiscal_week_number IN (50, 51, 52) AND
t.day_number_in_week IN (6,7) ORDER BY t.fiscal_month_desc,
t.day_number_in_month. Month Day CUM_SLOPE
```

```
CUM_ICPT-----12 12 -68
187212 12 -68 187212 13 -20.244898 1254.3673512 13 -20.244898
1254.3673512 19 -18.826087 128712 20 62.4561404 125.2865512 20
62.4561404 125.2865512 20 62.4561404 125.2865512 20 62.4561404
125.2865512 26 67.2658228 58.971231312 26 67.2658228
58.971231312 27 37.5245541 284.95822112 27 37.5245541
284.95822112 27 37.5245541 284.958221
```

SAMPLE 2 : 下例计算1998年4月每天的累积交易数量

```
SELECT UNIQUE
t.day_number_in_month, REGR_COUNT(s.amount_sold,
s.quantity_sold) OVER (PARTITION BY t.fiscal_month_number
ORDER BY t.day_number_in_month) "Regr_Count" FROM sales s,
times t WHERE s.time_id = t.time_id AND t.fiscal_year = 1998
AND t.fiscal_month_number = 4. DAY_NUMBER_IN_MONTH
Regr_Count-----1 8252 16503 24754
```

3300.26 2145030 22200

SAMPLE 3 : 下例计算1998年每月销售量中已开发票数量和总数量的累积回归线决定系数

```
SELECT
```

```
t.fiscal_month_number,REGR_R2(SUM(s.amount_sold),
SUM(s.quantity_sold))OVER (ORDER BY
t.fiscal_month_number) "Regr_R2"FROM sales s, times tWHERE
s.time_id = t.time_idAND t.fiscal_year = 1998GROUP BY
t.fiscal_month_numberORDER BY
t.fiscal_month_number.FISCAL_MONTH_NUMBER
Regr_R2-----12 13 .9273729844
```

```
.8070199725 .9327455676 .946828617 .9653420118 .9557680759
.95954261810 .93861857511 .88093141512 .882769189SAMPLE 4 :
下例计算1998年12月最后两周产品260的销售量中已开发票数
量和总数量的累积平均值SELECT
```

```
t.day_number_in_month,REGR_AVGY(s.amount_sold,
s.quantity_sold)OVER (ORDER BY t.fiscal_month_desc,
t.day_number_in_month)"Regr_AvgY",REGR_AVGX(s.amount_s
old, s.quantity_sold)OVER (ORDER BY t.fiscal_month_desc,
t.day_number_in_month)"Regr_AvgX"FROM sales s, times
tWHERE s.time_id = t.time_id AND s.prod_id = 260AND
t.fiscal_month_desc = 1998-12AND t.fiscal_week_number IN (51,
52)ORDER BY
```

```
t.day_number_in_month.DAY_NUMBER_IN_MONTH
Regr_AvgY Regr_AvgX-----14
882 24.514 882 24.515 801 22.2515 801 22.2516 777.6 21.618
642.857143 17.857142918 642.857143 17.857142920 589.5 16.37521
544 15.111111122 592.363636 16.454545522 592.363636
16.454545524 553.846154 15.384615424 553.846154 15.384615426
522 14.527 578.4 16.0666667SAMPLE 5 : 下例计算产品260和270
```

在1998年2月周末销售量中已开发票数量和总数量的累积REGR_SXY, REGR_SXX, and REGR_SYY统计值

```

SELECT
t.day_number_in_month,REGR_SXY(s.amount_sold,
s.quantity_sold)OVER (ORDER BY t.fiscal_year,
t.fiscal_month_desc) "Regr_sxy",REGR_SYY(s.amount_sold,
s.quantity_sold)OVER (ORDER BY t.fiscal_year,
t.fiscal_month_desc) "Regr_syy",REGR_SXX(s.amount_sold,
s.quantity_sold)OVER (ORDER BY t.fiscal_year,
t.fiscal_month_desc) "Regr_sxx"FROM sales s, times tWHERE
s.time_id = t.time_id AND prod_id IN (270, 260)AND
t.fiscal_month_desc = 1998-02AND t.day_number_in_week IN
(6,7)ORDER BY
t.day_number_in_month.DAY_NUMBER_IN_MONTH Reqr_sxy
Reqr_syy Reqr_sxx-----
-----1 18870.4 2116198.4 258.41 18870.4 2116198.4 258.41
18870.4 2116198.4 258.41 18870.4 2116198.4 258.47 18870.4
2116198.4 258.48 18870.4 2116198.4 258.414 18870.4 2116198.4
258.415 18870.4 2116198.4 258.421 18870.4 2116198.4 258.422
18870.4 2116198.4 258.492。 ROW_NUMBER 功能描述：返回有
序组中一行的偏移量，从而可用于按特定标准排序的行号
。 SAMPLE：下例返回每个员工再在每个部门中按员工号排
序后的顺序号SELECT department_id, last_name, employee_id,
ROW_NUMBER()OVER (PARTITION BY department_id
ORDER BY employee_id) AS emp_idFROM employeesWHERE
department_id DEPARTMENT_ID LAST_NAME
EMPLOYEE_ID EMP_ID-----

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