

## Section 4 Programming

# GROUP FUNCTIONS

You can use GROUP functions in all clauses of a SELECT statement. True or False?

False

What two group functions can be used with any datatype?

MIN, MAX

Given the following data in the employees table (employee\_id, salary, commission\_pct)

DATA: (143, 2600, null

144, 2500, null

149, 10500, .2

174, 11000, .3

176, 8600, .2

178, 7000, .15)

What is the result of the following statement:

```
SELECT AVG(commission_pct)
```

```
FROM employees
```

```
WHERE employee_id IN( 143,144,149,174,176,178)
```

0.2125

The following statement will work because it uses the same column with different GROUP functions:

```
SELECT AVG(salary), MAX(salary), MIN(salary), SUM(salary)
```

```
FROM employees;
```

True or False?

True

Given the following data in the employees table (employee\_id, salary, commission\_pct)

DATA: (143, 2600, null

144, 2500, null

149, 10500, .2

174, 11000, .3

176, 8600, .2

178, 7000, .15)

What is the result of the following statement:

```
SELECT SUM(commission_pct), COUNT(salary)
```

```
FROM employees
```

```
WHERE employee_id IN( 143,144,149,174,176,178)
```

SUM = .85 and COUNT = 6

# COUNT, DISTINCT, NVL

What would the following SQL statement return?

```
SELECT COUNT(DISTINCT salary)
```

FROM employees;

The number of unique salaries in the employees table

To include null values in the calculations of a group function, you must:

Convert the null to a value using the NVL( ) function

What would the following SQL statement return?

```
SELECT COUNT(first_name)
```

```
FROM employees;
```

The total number of non-null first names in the employees table

Using your existing knowledge of the employees table, would the following two statements produce the same result?

```
SELECT COUNT(*)
```

```
FROM employees;
```

```
SELECT COUNT(commission_pct)
```

```
FROM employees;
```

No

Given the following data in the employees table (employee\_id, salary, commission\_pct)

DATA: (143, 2600, null

144, 2500, null

149, 10500, .2

174, 11000, .3

176, 8600, .2

178, 7000, .15)

What is the result of the following statement:

```
SELECT SUM(commission_pct), COUNT(commission_pct)
```

```
FROM employees
```

```
WHERE employee_id IN( 143,144,149,174,176,178)
```

SUM = .85 and COUNT = 4