

# Coder Girls Problem Set 5

Summarizing data by calculating sums, averages, and counts is a very important skill to learn, but also one that often trips up beginners.

Remember the rules:

- 1) Any column appearing in the SELECT list or the ORDER BY clause must be part of an Aggregate expression or added to the GROUP BY clause.
- 2) To filter out rows, add an expression to the WHERE clause. To filter out groups, add a filter to the HAVING clause.

Before completing this problem set, be sure to view the video on [aggregate queries](#).

## Exercise 1

- 1.1 Write a query returning the count of orders placed. Use the Sales.SalesOrderHeader table.
- 1.2 Write a query returning the average TotalDue amount from all the orders.
- 1.3 What is the most expensive UnitPrice found in the Sales.SalesOrderDetail table?
- 1.4 Write a query listing the minimum, maximum, and average ListPrice from the Production.Product table.

## Exercise 2

- 2.1 Write a query returning the average TotalDue for each order year.
- 2.2 Write a query that adds up the total OrderQty for each SalesOrderID. Use the Sales.SalesOrderDetail table.
- 2.3 Write a query that returns the count of products by ProductLine found in the Production.Product table.
- 2.4 Write a query that returns the sum of TotalDue by CustomerID and order year.

## Exercise 3

- 3.1 Write a query that returns the count of orders by customer, but only return the list of customers who have placed less than 4 orders.
- 3.2 Return the list of orders where the sum of the LineTotal column is over \$2000 for a SalesOrderID. Use the Sales.SalesOrderDetail table.
- 3.3 Return the count of products where the color is filled in, but there is only 1 product returned per color and ProductModelID.
- 3.4 Return a count of distinct ProductID values from the Sales.SalesOrderDetail table.