Question 1

a. Think about what could be going wrong with our calculation. Think about a better way to evaluate this data.

The problem is not the AOV calculation itself. The problem is what the calculation represents. The AOV accurately describes the average of the order amount, but fails to accurately represent the products. Just by scrolling through the data, you can see only a small percentage of the orders exceed the AOV and it is because some orders contain many more pairs than the average customer would buy, and that one store that sells sneakers for $25725. This skews the AOV to seem that even the average customer pays $3145.13 in a single transaction which makes all sneakers seem expensive and not affordable.

b. What metric would you report for this dataset?

I would consider using a different metric that considers both the order amounts and the total items. Let's call it average item value (AIV). AIV would find the average amount of all the items sold in the data set and would be more representative of an average price for the sneaker stores.

c. What is its value?

AIV would be calculated by taking the sum of all the order amounts and dividing it by the sum of all the total items.

=SUM(D2:D)/SUM(E2:E)

357.9215222 ≈ 357.92

AIV would equal $357.92.

Question 2

a. **How many orders were shipped by Speedy Express in total?**

SELECT COUNT(OrderId) TotalOrders

FROM Orders INNER JOIN Shippers ON Orders.ShipperId=Shippers.ShipperId

WHERE ShipperName='Speedy Express'

TotalOrders
54

b. **What is the last name of the employee with the most orders?**

SELECT LastName

FROM Employees INNER JOIN Orders ON Employees.EmployeeID=Orders.EmployeeID

GROUP BY Employees.EmployeeID

ORDER BY COUNT(OrderID) DESC

LIMIT 1

LastName
Peacock

c. **What product was ordered the most by customers in Germany?**

SELECT ProductName FROM

(SELECT ProductID, Quantity FROM OrderDetails INNER JOIN Orders ON OrderDetails.OrderID=Orders.OrderID INNER JOIN Customers ON Orders.CustomerID=Customers.CustomerID WHERE Country='Germany') T

INNER JOIN Products ON T.ProductID=Products.ProductID

GROUP BY T.ProductID

ORDER BY SUM(Quantity) DESC

LIMIT 1

ProductName
Boston Crab Meat