**QUESTION 1**

Average order value is calculated as total revenue divided by total number of orders.

**AOV = REVENUE / TOTAL NUMBER OF ORDERS**

1. According to the question, AOV calculated over a 30 day window is $3145.13. But shopify have exactly 100 sneaker shops, and each of these shops sells only one model of shoe. The shops at shopify sells sneaker which are really affordable and it is noticed that, the calculated AOV is wrong. After analysing the data properly I have come through the following results:

* After observing the data it is clear that there are very large differences in the order amounts and number of orders which lead to misleading conclusions. We can sort the values in Microsoft excel by using sort and filter. The data is really large. We can divide the data into maximum and minimum values to make the calculation process easier. There is a huge difference in the order amounts because some people order the products in bulk like business men and other organisations as the products are affordable at shopify.
* After sorting, it is observed that there are few duplicates in the given data which should be removed from the list to decrease the possibility of wrong AOV. After deleting the duplicates the AOV is calculated as $2443.571572.
* Grouping of data should be done as there many same order number/id with same order amount but different time and date.

1. We can use mean, median and mode for making the calculation fast and easy.

* Mean is widely used but **median** is the best out of three with ordinal variable. Median is least effected with the outliers. Whereas, mean affects the value of the output because of outliers. It represents the central value with best efficiency.

1. MEDIAN = $284

**QUESTION 2**

A) SELECT COUNT(\*)

FROM Orders

WHERE ShipperID=1;

**ANS-54**

1. SELECT LastName

FROM Employees

JOIN Orders

  ON Employees.EmployeeID = Orders.EmployeeID

JOIN OrderDetails

  ON Orders.OrderID = OrderDetails.OrderID

Where Quantity = (Select MAX(Quantity) from OrderDetails);

**ANS: FULLER**

c) SELECT ProductName

FROM Products

JOIN OrderDetails

ON Products.ProductID = OrderDetails.ProductID

JOIN Orders

ON OrderDetails.OrderID = Orders.OrderID

JOIN Customers

ON Orders.CustomerID = Customers.CustomerID

WHERE Country = 'Germany'

ORDER BY Quantity DESC;

**ANS: Steeleye Stout**