



SQL #1

Q: How many distinct buyers made a purchase in the first half of the month?




```
SELECT COUNT(DISTINCT BuyerID) AS "Number of Buyers"  
FROM orders  
WHERE OrderDate BETWEEN '2022-11-01' AND '2022-11-15';
```



SQL #2

List all of sellers and their relevant information that are located in the following Southeastern states: North/South Carolina, Tennessee.




```
SELECT *  
FROM Sellers  
WHERE State IN ('North Carolina', 'South Carolina', 'Tennessee')
```



SQL #3

Q: Compare the number of sales between each season of apparel.



```
Select Season, count(OrderID) as "Number of Sales"  
FROM items, apparel  
WHERE items.ProductID = apparel.ProductID AND FinalSellPrice > 0  
GROUP BY season  
ORDER BY `Number of Sales` DESC;
```



SQL #4

Q: List how many times each style of shoe has been purchased in descending order.

```
SELECT Style, count(*) AS "Number of Sales"  
FROM items INNER JOIN shoes  
ON items.ProductID = shoes.ProductID  
WHERE FinalSellPrice > 0  
GROUP BY Style  
ORDER BY `Number of Sales` DESC;
```



SQL #5

Q: What state was the buyer with the most bids from? What state was the seller with the most bids on their items from?

```
SELECT b.BuyerID AS "Buyer/Seller ID", b.State, mxcnt AS "Number of Bids"
FROM buyers b RIGHT JOIN
(SELECT a.BuyerID, count(*) mxcnt
FROM auction a GROUP BY BuyerID
ORDER BY mxcnt desc LIMIT 1) s
ON s.BuyerID = b.BuyerID
UNION
SELECT S.SellerID, S.State, mxcnt AS "Number of Bids"
FROM sellers S RIGHT JOIN
(SELECT SellerID, count(*) mxcnt
FROM auction GROUP BY SellerID
ORDER BY mxcnt DESC LIMIT 1) B ON S.SellerID = B.SellerID;
```



SQL #6

Q: Display the most popular product (most number of bids) and its relevant information.

```
SELECT auction.ProductID, ProductName, RetailPrice, BrandName,  
MAX(bidcounts.BidCount) AS "Number of Bids"  
FROM auction LEFT JOIN  
(SELECT ProductID, COUNT(ProductID) AS "BidCount" FROM auction  
GROUP BY ProductID) AS bidcounts  
ON auction.ProductID = bidcounts.ProductID  
LEFT JOIN products on auction.ProductID = bidcounts.ProductID;
```

SQL #7

Q: Report the number of bids posted throughout the day, given the following groups:
Early Morning (12AM - 6AM), Morning (6 AM - 12PM),
Afternoon (12PM - 5PM), Evening (5PM - 12AM)

```
SELECT TimeGroup, count(TimeGroup) AS "Number of Bids"
FROM auction JOIN
(SELECT BidTime,
(CASE
WHEN BidTime BETWEEN '00:00:00' AND '06:00:00' THEN 'Early Morning'
WHEN BidTime BETWEEN '06:00:01' AND '12:00:00' THEN 'Morning'
WHEN BidTime BETWEEN '12:00:01' AND '17:00:00' THEN 'Afternoon'
ELSE 'Evening'
END) AS TimeGroup
FROM auction) AS TimeGroup2 ON auction.BidTime = TimeGroup2.BidTime
GROUP BY TimeGroup
ORDER BY "Number of Bids" DESC;
```



SQL #8

Q: Inflation has hit. Update the retail price of all Nike and Adidas shoes by 7.7% (truncate to nearest dollar).

```
CREATE TABLE products2 LIKE products;  
INSERT INTO products2 SELECT * FROM products;  
UPDATE products2  
SET RetailPrice = RetailPrice * 1.077  
WHERE BrandName IN ('Nike','Adidas')
```




SQL #9

Q: List the top 5 sellers with the highest total sales.

```
SELECT SellerID, SUM(FinalSellPrice) AS 'Total Sales'  
FROM items  
WHERE FinalSellPrice > 0  
GROUP BY SellerID  
ORDER BY `Total Sales` DESC LIMIT 5;
```

SQL #10

Q: List the orders that contain more than one item in them and include the associated product information.

```
SELECT items.OrderID, orders.BuyerID, products.ProductID,  
products.ProductName, products.RetailPrice, FinalSellPrice,  
orders.OrderDate, orders.ProcessingFee, orders.ShippingFee,  
orders.SalesTax, orders.OrderTotal  
FROM items LEFT JOIN  
(SELECT OrderID, COUNT(OrderID)  
FROM items  
WHERE FinalSellPrice > 0  
GROUP BY OrderID HAVING COUNT(OrderID)>1) AS A  
ON items.OrderID = A.OrderID LEFT JOIN  
products ON products.ProductID = items.ProductID LEFT JOIN  
orders ON orders.OrderID = A.OrderID  
WHERE A.OrderID IS NOT NULL;
```