**1. Sales Analysis**

* **Measure**:  
  **Total Sales** = SUM('Order Details'[Sales])  
  **Visual**: Clustered Column Chart (Sales by Category/Sub-Category)
* **Measure**:  
  **Total Sales by Year/Month** = SUM('Order Details'[Sales]) (add filter for Ship Date)  
  **Visual**: Line Chart (Sales Trend Over Time)

**2. Profitability Analysis**

* **Calculated Column**:  
  **Profit Margin** = DIVIDE(SUM('Order Details'[Profit]), SUM('Order Details'[Sales]))  
  **Visual**: Table (Top Profitable Products by Profit Margin)
* **Measure**:  
  **Profit by Category** = SUM('Order Details'[Profit])  
  **Visual**: Stacked Bar Chart (Profit by Category)

**3. Customer Analysis**

* **Measure**:  
  **Orders Per Customer** = DISTINCTCOUNT(Orders[Order ID])  
  **Visual**: Table (Top Customers by Orders)
* **Measure**:  
  **Sales by Country** = SUM('Order Details'[Sales])  
  **Visual**: Map Visualization (Sales by Country)

**4. Shipping Mode Analysis**

* **Measure**:  
  **Sales by Ship Mode** = SUM('Order Details'[Sales])  
  **Visual**: Bar Chart (Sales by Shipping Mode)
* **Calculated Column**:  
  **Shipping Duration** = DATEDIFF(Orders[Order Date], Orders[Ship Date], DAY)  
  **Visual**: Histogram or Column Chart (Shipping Duration)

**5. Discount Analysis**

* **Measure**:  
  **Impact of Discounts on Profit** = SUM('Order Details'[Profit])  
  **Visual**: Scatter Chart (Discount vs. Profit)
* **Measure**:  
  **Products with Highest Discounts** = SUM('Order Details'[Discount])  
  **Visual**: Table (Products Sorted by Discount)

**6. Order Analysis**

* **Measure**:  
  **Average Order Value** = DIVIDE(SUM('Order Details'[Sales]), COUNT('Orders'[Order ID]))  
  **Visual**: Card Visual (Average Order Value)
* **Measure**:  
  **Distribution of Order Values** = Order Value (custom binning required)  
  **Visual**: Histogram (Order Value Distribution)
* **Calculated Column**:  
  **Customer Segmentation Based on Order Size** = IF(SUM('Order Details'[Sales]) > 1000, "High Value", "Low Value")  
  **Visual**: Pie Chart (Customer Segments by Order Size)

**7. Customer Segmentation (Antiques)**

* **Calculated Column**:  
  **Customer Segment** = IF(SUM('Order Details'[Sales]) > 1000, "High Value", "Low Value")  
  **Visual**: Clustered Bar Chart (Customer Segments)
* **Measure**:  
  **Customer Lifetime Value (CLV)** = SUMX(FILTER(Orders, Orders[Customer ID] = EARLIER(Orders[Customer ID])), Orders[Total Sales])  
  **Visual**: Card Visual (Customer Lifetime Value)
* **Measure**:  
  **Retention Rate** = DIVIDE(COUNTROWS(FILTER(Orders, Orders[Repeat Customer] = TRUE())), COUNTROWS(Orders))  
  **Visual**: Line Chart (Retention Trends)

**8. Geographic Analysis**

* **Measure**:  
  **Sales by Region** = SUM('Order Details'[Sales])  
  **Visual**: Map Visualization (Sales by Region)
* **Measure**:  
  **Top Region Performance** = RANKX(ALL('Region'[Region]), SUM('Sales'[Total Sales]), , DESC)  
  **Visual**: Bar Chart (Sales by Region, Ranked)

**9. Inventory Analysis**

* **Measure**:  
  **Inventory Turnover Rate** = DIVIDE(SUM('Order Details'[Sales]), AVERAGE('Inventory'[Stock Quantity]))  
  **Visual**: Card Visual (Inventory Turnover Rate)
* **Calculated Column**:  
  **Slow Moving Items** = IF(SUM('Order Details'[Sales]) < 100, "Slow Moving", "Fast Moving")  
  **Visual**: Bar Chart (Slow vs. Fast Moving Items)

**10. Forecasting**

* **Power BI Feature**:  
  **Time-Series Forecasting** (Automatic feature)  
  **Visual**: Line Chart (Forecasted Sales)

**11. Cost Analysis**

If you have a column for **Profit**, you can derive COGS using:

COGS=Sales−Profit\text{COGS} = \text{Sales} - \text{Profit}COGS=Sales−Profit

* **Measure**:  
  **Cost of Goods Sold (COGS)** = SUM('Order Details'[Cost of Goods Sold])  
  **Visual**: Card Visual (Total COGS)
* **Measure**:  
  **Profit-Cost Ratio** = DIVIDE(SUM('Order Details'[Profit]), SUM('Order Details'[Cost of Goods Sold]))  
  **Visual**: Stacked Column Chart (Cost vs. Profit)

**12. Market Basket Analysis**

* **Measure**:  
  **Frequent Item Pairs** = CALCULATE(COUNTROWS(RELATED('Products')), 'Order Details'[Sales] > 100)  
  **Visual**: Network Graph or Matrix (Product Associations)

**13. KPI (Key Performance Indicators)**

* **Measure**:  
  **Total Sales** = SUM('Order Details'[Sales])  
  **Visual**: Card Visual (Total Sales)
* **Measure**:  
  **Total Profit** = SUM('Order Details'[Profit])  
  **Visual**: Card Visual (Total Profit)
* **Measure**:  
  **Average Discount** = AVERAGE('Order Details'[Discount])  
  **Visual**: Card Visual (Average Discount)

**14. Growth Rate**

* **Measure**:  
  **Growth Rate** = (SUM('Order Details'[Sales]) - PREVIOUSYEAR(SUM('Order Details'[Sales]))) / PREVIOUSYEAR(SUM('Order Details'[Sales]))

**Table** :  
Calendar = CALENDARAUTO()

Growth Rate =

DIVIDE(

SUM('Order Details'[Sales]) - CALCULATE(SUM('Order Details'[Sales]), PREVIOUSYEAR('Calendar'[Date])),

CALCULATE(SUM('Order Details'[Sales]), PREVIOUSYEAR('Calendar'[Date]))

)  
**Visual**: Line Chart (Sales Growth)

**Dashboard Design Tips:**

* **Dynamic Filters**: Use **Slicers** for interactive filtering (e.g., by year, category, region).
* **Conditional Formatting**: Apply color formatting for high/low values (e.g., profit margins, sales).
* **Interactive Visuals**: Enable drill-through for deeper insights into data points.