Dataset:

| **Order ID** | **Customer Name** | **Region** | **Product** | **Sales Amount** | **Quantity** | **Order Date** |
| --- | --- | --- | --- | --- | --- | --- |
| 101 | Alice Johnson | North America | Laptop | 1200 | 3 | 2024-01-15 |
| 102 | Bob Smith | Europe | Desktop | 1500 | 2 | 2024-01-17 |
| 103 | Carol White | Asia | Tablet | 800 | 5 | 2024-01-20 |
| 104 | David Brown | North America | Smartphone | 600 | 10 | 2024-01-22 |
| 105 | Emily Davis | Europe | Laptop | 1300 | 4 | 2024-01-25 |
| 106 | Frank Miller | Asia | Desktop | 1700 | 1 | 2024-01-28 |
| 107 | Grace Wilson | North America | Tablet | 900 | 2 | 2024-02-01 |
| 108 | Henry Moore | Europe | Smartphone | 500 | 8 | 2024-02-05 |
| 109 | Irene Taylor | Asia | Laptop | 1400 | 6 | 2024-02-10 |
| 110 | Jack Anderson | North America | Desktop | 1600 | 3 | 2024-02-15 |

Business Scenario Questions:

1. **VLOOKUP:**

* **Q1:** Find the Sales Amount for Order ID 105.
* **Q2:** Retrieve the Product name for Customer Name "David Brown".

2. **INDEX MATCH:**

* **Q1:** Find the Quantity sold for the Order ID 108.
* **Q2:** Retrieve the Region for the Customer Name "Emily Davis".

3. **SUMIFS:**

* **Q1:** Calculate the total Sales Amount for the North America region.
* **Q2:** Find the total Sales Amount for "Laptop" products.

4. **COUNTIFS:**

* **Q1:** Count the number of orders placed in the Europe region.
* **Q2:** Count the number of orders for "Smartphone" products.

5. **AVERAGEIF:**

* **Q1:** Calculate the average Sales Amount for orders in the Asia region.
* **Q2:** Find the average Quantity for "Tablet" products.

Example Formulas:

1. **VLOOKUP:**
   * **Q1:** =VLOOKUP(105, A2:F11, 5, FALSE)
   * **Q2:** =VLOOKUP("David Brown", B2:F11, 4, FALSE)
2. **INDEX MATCH:**
   * **Q1:** =INDEX(F2:F11, MATCH(108, A2:A11, 0))
   * **Q2:** =INDEX(C2:C11, MATCH("Emily Davis", B2:B11, 0))
3. **SUMIFS:**
   * **Q1:** =SUMIFS(E2:E11, C2:C11, "North America")
   * **Q2:** =SUMIFS(E2:E11, D2:D11, "Laptop")
4. **COUNTIFS:**
   * **Q1:** =COUNTIFS(C2:C11, "Europe")
   * **Q2:** =COUNTIFS(D2:D11, "Smartphone")
5. **AVERAGEIF:**
   * **Q1:** =AVERAGEIF(C2:C11, "Asia", E2:E11)
   * **Q2:** =AVERAGEIF(D2:D11, "Tablet", F2:F11)

Answers:

1. **VLOOKUP:**
   * **Q1:** $1300 (Sales Amount for Order ID 105)
   * **Q2:** Smartphone (Product name for Customer Name "David Brown")
2. **INDEX MATCH:**
   * **Q1:** 8 (Quantity sold for Order ID 108)
   * **Q2:** Europe (Region for Customer Name "Emily Davis")
3. **SUMIFS:**
   * **Q1:** 4300(TotalSalesAmountfortheNorthAmericaregion)−∗∗Q2:∗∗3900 (Total Sales Amount for "Laptop" products)
4. **COUNTIFS:**
   * **Q1:** 3 (Number of orders placed in the Europe region)
   * **Q2:** 2 (Number of orders for "Smartphone" products)
5. **AVERAGEIF:**
   * **Q1:** $1300 (Average Sales Amount for orders in the Asia region)
   * **Q2:** 3.5 (Average Quantity for "Tablet" products)

You can use these formulas and answers to practice and verify your understanding of each function.