Ejercicio 1 – INNER JOIN básico: Facturación simple

Respuesta:

```
SELECT
   o.OrderID,
   o.OrderDate,
   c.FirstName + ' ' + c.LastName AS NombreCliente
FROM Orders o
INNER JOIN Customers c ON o.CustomerID = c.CustomerID;
```

Ejercicio 2 – LEFT JOIN: Productos sin ventas

Respuesta:

```
SELECT
   p.ProductName,
   ISNULL(SUM(oi.Quantity), 0) AS CantidadVendida
FROM Products p
LEFT JOIN OrderItems oi ON p.ProductID = oi.ProductID
GROUP BY p.ProductName;
```

Ejercicio 3 – RIGHT JOIN: Ítems huérfanos

Respuesta:

```
SELECT
   oi.OrderItemID,
   oi.ProductID,
   o.OrderID
FROM Orders o
RIGHT JOIN OrderItems oi ON o.OrderID = oi.OrderID
WHERE o.OrderID IS NULL;
```

Ejercicio 4 – FULL OUTER JOIN: Contactos duplicados

Respuesta:

```
SELECT
   COALESCE(c.Email, s.Email) AS Email,
   CASE
      WHEN c.Email IS NOT NULL AND s.Email IS NOT NULL THEN 'Ambos'
      WHEN c.Email IS NOT NULL THEN 'Cliente'
      WHEN s.Email IS NOT NULL THEN 'Proveedor'
   END AS TipoContacto
FROM Customers c
FULL OUTER JOIN Suppliers s ON c.Email = s.Email;
```

Ejercicio 5 – UNION: Mailing único

Respuesta:

```
SELECT Email FROM Customers
UNION
SELECT Email FROM Leads;
```

Ejercicio 6 – INTERSECT: Contactos duplicados

Respuesta:

```
SELECT Email FROM Customers
INTERSECT
SELECT Email FROM Leads;
```

Ejercicio 7 – EXCEPT: Clientes nuevos sin contacto previo

Respuesta:

```
SELECT Email FROM Customers
EXCEPT
SELECT Email FROM Leads;
```

Ejercicio 8 – JOIN de 3 tablas: Detalle completo de pedidos

Respuesta:

```
SELECT
    o.OrderID,
    o.OrderDate,
    c.FirstName + ' ' + c.LastName AS NombreCliente,
    p.ProductName,
    oi.Quantity
FROM Orders o
JOIN Customers c ON o.CustomerID = c.CustomerID
JOIN OrderItems oi ON o.OrderID = oi.OrderID
JOIN Products p ON oi.ProductID = p.ProductID;
```

Ejercicio 9 – JOIN con LEFT JOIN: Productos sin venta por categoría

Respuesta:

```
SELECT
    p.ProductName,
    c.CategoryName
FROM Products p
LEFT JOIN OrderItems oi ON p.ProductID = oi.ProductID
JOIN Categories c ON p.CategoryID = c.CategoryID
WHERE oi.OrderItemID IS NULL;
```

Ejercicio 10 – FULL OUTER JOIN + múltiples tablas: Emails únicos

Respuesta:

```
SELECT
    COALESCE(c.Email, s.Email, l.Email) AS Email,
    COALESCE(c.FirstName + ' ' + c.LastName, s.SupplierName, l.LeadName) AS Nombre,
    CASE
        WHEN c.Email IS NOT NULL AND s.Email IS NOT NULL AND l.Email IS NOT NULL
THEN 'Cliente+Proveedor+Lead'
        WHEN c.Email IS NOT NULL AND s.Email IS NOT NULL THEN 'Cliente+Proveedor'
        WHEN c.Email IS NOT NULL AND l.Email IS NOT NULL THEN 'Cliente+Lead'
        WHEN s.Email IS NOT NULL AND l.Email IS NOT NULL THEN 'Proveedor+Lead'
        WHEN c.Email IS NOT NULL THEN 'Cliente'
        WHEN s.Email IS NOT NULL THEN 'Proveedor'
        WHEN l.Email IS NOT NULL THEN 'Lead'
```

```
    END AS TipoPersona
FROM Customers c
FULL OUTER JOIN Suppliers s ON c.Email = s.Email
FULL OUTER JOIN Leads l ON COALESCE(c.Email, s.Email) = l.Email;
```

Ejercicio 11 (mejorado) – SELF JOIN + JOIN con Categoría y Proveedor

Respuesta:

```
SELECT

    p1.ProductName AS ProductoBase,

    p2.ProductName AS ProductoSugerido,

    s.SupplierName AS Proveedor,

    c.CategoryName AS Categoria

FROM Products p1

JOIN Products p2

  ON p1.SupplierID = p2.SupplierID

 AND p1.CategoryID = p2.CategoryID

 AND p1.ProductID <> p2.ProductID

JOIN Suppliers s ON p1.SupplierID = s.SupplierID

JOIN Categories c ON p1.CategoryID = c.CategoryID

ORDER BY ProductoBase;
```

Ejercicio 12 – JOIN + CROSS JOIN: Combinaciones posibles Categoría-Proveedor

Respuesta:

```
SELECT
    c.CategoryName,
    s.SupplierName
FROM Categories c
```

```
CROSS JOIN Suppliers s
LEFT JOIN Products p
  ON p.CategoryID = c.CategoryID AND p.SupplierID = s.SupplierID
WHERE p.ProductID IS NULL;
```

Ejercicio 13 – INNER JOIN con múltiples niveles: Resumen por pedido

Respuesta:

```
SELECT
    o.OrderID,
    o.OrderDate,
    c.FirstName + ' ' + c.LastName AS Cliente,
    SUM(oi.Quantity) AS TotalItems,
    SUM(oi.Quantity * p.UnitPrice) AS TotalGastado
FROM Orders o
JOIN Customers c ON o.CustomerID = c.CustomerID
JOIN OrderItems oi ON o.OrderID = oi.OrderID
JOIN Products p ON oi.ProductID = p.ProductID
GROUP BY o.OrderID, o.OrderDate, c.FirstName, c.LastName
ORDER BY o.OrderID;
```

Ejercicio 14 – LEFT JOIN doble: Productos sin pedidos y sin proveedor

Respuesta:

```
SELECT
    p.ProductName,
    c.CategoryName,
    s.SupplierName
FROM Products p
LEFT JOIN OrderItems oi ON p.ProductID = oi.ProductID
LEFT JOIN Suppliers s ON p.SupplierID = s.SupplierID
JOIN Categories c ON p.CategoryID = c.CategoryID
WHERE oi.OrderItemID IS NULL AND p.SupplierID IS NULL;
```

Ejercicio 15 – INNER JOIN encadenado: Pedidos con productos y categoría

Respuesta:

```
SELECT
    c.FirstName + ' ' + c.LastName AS Cliente,
```

```
    p.ProductName,
    cat.CategoryName,
    s.SupplierName,
    p.UnitPrice,
    oi.Quantity
FROM OrderItems oi
JOIN Orders o ON oi.OrderID = o.OrderID
JOIN Customers c ON o.CustomerID = c.CustomerID
JOIN Products p ON oi.ProductID = p.ProductID
JOIN Categories cat ON p.CategoryID = cat.CategoryID
JOIN Suppliers s ON p.SupplierID = s.SupplierID;
```