

-- 1.) Write a query to count the number of invoices.

```
SELECT COUNT(*) AS [Q1] FROM INVOICE;
```

Q1
8

-- 2.) Write a query to count the number of customers with a customer balance over \$500.

```
SELECT COUNT(*) AS [Q2] FROM CUSTOMER WHERE [CUS_BALANCE] > 500;
```

Q2
2

```

8
9 -- 3.) Generate a Listing of all purchases made by customers.
0
1 SELECT
2   C.[CUS_CODE] AS [CustomerCode],
3   C.[CUS_FNAME] || ' ' || C.[CUS_LNAME] AS [Customer Name],
4   I.[INV_NUMBER] AS [Invoice],
5   I.[INV_DATE] AS [InvoiceDate],
6   L.[LINE_NUMBER] AS [LineNumber],
7   P.[P_CODE] AS [ProductCode],
8   P.[P_DESCRIPT] AS [ProductDescription]
9 FROM
0   [PRODUCT] P
1   INNER JOIN [LINE] L
2     ON P.[P_CODE] = L.[P_CODE]
3   INNER JOIN [INVOICE] I
4     ON I.[INV_NUMBER] = L.[INV_NUMBER]
5   INNER JOIN [CUSTOMER] C
6     ON I.[CUS_CODE] = C.[CUS_CODE]
7 ;
8

```

Customer	Customer Name	Invoice	InvoiceDate	LineNumber	ProductCode
10014	Myron Orlando	1001	1/16/2016	1	13-Q2/P2
10014	Myron Orlando	1001	1/16/2016	2	23109-HB
10011	Leona Dunne	1002	1/16/2016	1	54778-2T
10012	Kathy Smith	1003	1/16/2016	1	2238/QPD
10012	Kathy Smith	1003	1/16/2016	2	1546-QQ2
10012	Kathy Smith	1003	1/16/2016	3	13-Q2/P2
10011	Leona Dunne	1004	1/17/2016	1	54778-2T
10011	Leona Dunne	1004	1/17/2016	2	23109-HB
10018	Anne Farriss	1005	1/17/2016	1	PVC23DRT
10014	Myron Orlando	1006	1/17/2016	1	SM-18277
10014	Myron Orlando	1006	1/17/2016	2	2232/QTY
10014	Myron Orlando	1006	1/17/2016	3	23109-HB
10014	Myron Orlando	1006	1/17/2016	4	89-WRE-Q
10015	Amy O'Brian	1007	1/17/2016	1	13-Q2/P2
10015	Amy O'Brian	1007	1/17/2016	2	54778-2T
10011	Leona Dunne	1008	1/17/2016	1	PVC23DRT
10011	Leona Dunne	1008	1/17/2016	2	WR3/TT3
10011	Leona Dunne	1008	1/17/2016	3	23109-HB

#### ProductDescription

7.25-in. pwr. saw blade

Claw hammer

Rat-tail file, 1/8-in. fine

B&D cordless drill, 1/2-in.

Hrd. cloth, 1/4-in., 2x50

7.25-in. pwr. saw blade

Rat-tail file, 1/8-in. fine

Claw hammer

PVC pipe, 3.5-in., 8-ft

1.25-in. metal screw, 25

B&D jigsaw, 12-in. blade

Claw hammer

Hicut chain saw, 16 in.

7.25-in. pwr. saw blade

Rat-tail file, 1/8-in. fine

PVC pipe, 3.5-in., 8-ft

Steel matting, 4'x8'x1/6", .5" mesh

Claw hammer

-- 4.) Generate a listing of customer purchases,  
-- including the subtotals for each of the invoice line numbers.

```
SELECT  
C.[CUS_FNAME] || ' ' || C.[CUS_LNAME] AS [Customer Name],  
I.[INV_NUMBER] AS [Invoice],  
SUM( L.[LINE_PRICE] * L.[LINE_UNITS] ) AS [Balance]  
FROM  
INVOICE I  
INNER JOIN [LINE] L  
ON I.[INV_NUMBER] = L.[INV_NUMBER]  
INNER JOIN [CUSTOMER] C  
ON I.[CUS_CODE] = C.[CUS_CODE]  
GROUP BY  
I.[INV_NUMBER]  
;
```

Customer Name	Invoice	Balance
Myron Orlando	1001	24.94
Leona Dunne	1002	9.98
Kathy Smith	1003	153.85
Leona Dunne	1004	34.87
Anne Farriss	1005	70.44
Myron Orlando	1006	397.83
Amy O'Brian	1007	34.97
Leona Dunne	1008	399.15

-- 5.) List the balance characteristics of the customers who have made  
-- purchases during the current invoice cycle—that is, for the customers who  
-- appear in the INVOICE table.

```
SELECT  
C.[CUS_FNAME] || ' ' || C.[CUS_LNAME] AS [Customer Name],  
COUNT( [ALL | DISTINCT] ) AS [Orders],  
SUM( C.[CUS_BALANCE] ) AS [Balance]  
FROM  
[INVOICE] I  
INNER JOIN CUSTOMER C ON  
I.[CUS_CODE] = C.[CUS_CODE]  
GROUP BY  
I.[CUS_CODE];
```

Customer Name	Orders	Balance
Leona Dunne	3	0
Kathy Smith	1	345.86
Myron Orlando	2	0
Amy O'Brian	1	0
Anne Farriss	1	216.55

-- 6.) Find a listing of customers who did not make purchases during the invoicing period.

```
SELECT  
C.[CUS_FNAME] || ' ' || C.[CUS_LNAME] AS [Customer Name]  
FROM  
[CUSTOMER] C  
LEFT OUTER JOIN [INVOICE] I  
ON C.[CUS_CODE] = I.[CUS_CODE]  
WHERE  
[INV_NUMBER] IS NULL  
;
```

Customer Name
James Brown
Paul Olowski
Alfred Ramas
Olette Smith
George Williams

-- 7.) Create a query to produce a summary of the value of products currently in inventory.

```
SELECT
[P_DESCRIPT] AS [Product],
[P_QOH] * [P_PRICE] AS [ValueOnHand],
( CASE [P_DISCOUNT] WHEN 0 THEN 1 ELSE 1 - [P_DISCOUNT] END ) *
[P_PRICE] * [P_QOH] AS [DiscountedValue]
FROM
[PRODUCT]
```

Product	ValueOnHand	DiscountedValue
Power painter, 15 psi., 3-nozzle	879.92	879.92
7.25-in. pwr. saw blade	479.68	455.696
9.00-in. pwr. saw blade	314.82	314.82
Hrd. cloth, 1/4-in., 2x50	599.25	599.25
Hrd. cloth, 1/2-in., 3x50	1011.77	1011.77
B&D jigsaw, 12-in. blade	879.36	835.392
B&D jigsaw, 8-in. blade	599.22	569.259
B&D cordless drill, 1/2-in.	467.4	444.03
Claw hammer	228.85	205.965
Sledge hammer, 12 lb.	115.2	109.44
Rat-tail file, 1/8-in. fine	214.57	214.57
Hicut chain saw, 16 in.	2826.89	2685.5455
PVC pipe, 3.5-in., 8-ft	1103.56	1103.56
1.25-in. metal screw, 25	1202.28	1202.28
2.5-in. wd. screw, 50	2002.65	2002.65
Steel matting, 4'x8'x1/6", .5" mesh	2159.1	1943.19