SQL questions

Assumption: Total cost = Unit_cost * quantity, Total price = Unit_price * quantity

1. Display Full_MFG_Name in Table B without MFG Code (Example: ‘Amphenol’)

```
select right(Full_MFG_Name, charindex('|', reverse(Full_MFG_Name)) - 1) as Full_MFG_Name,
S.product,s.quantity,s.unit_price, s.vaunitprice1, s.unit_cost,s.date
from sales s
left outer join MFG m on m.mfg_code = s.mfg_code
```

Full_MFG_Name	product	quantity	unit_price	vaunitprice1	unit_cost	date
KEMET	N	100	18.43	0.03	13.02	2017-04-11T00:00:00Z
KEMET	D	100	18.43	0.03	13.02	2016-04-21T00:00:00Z
KEMET	J	16	3.31	0.0001	2.45	2017-08-26T00:00:00Z
KEMET	K	1700	0.545	0.072	0.44	2017-09-06T00:00:00Z
KEMET	E	150	0.8	0.1666	0.21	2017-12-04T00:00:00Z
Amphenol	I	5	15.49	0.35	13.8618	2017-05-15T00:00:00Z
Amphenol	H	5	16.33	0.35	15.2708	2017-08-19T00:00:00Z
Amphenol	M	3	19.67	0.0001	18.2774	2017-10-29T00:00:00Z
Amphenol	G	5	15.2	0.35	13.2924	2017-11-30T00:00:00Z
Amphenol	B	1	895.6	1.75	850.82	2017-02-22T00:00:00Z
Amphenol	A	14	46.47	0.125	44.4938	2017-01-03T00:00:00Z
Amphenol	F	10	23.23	0.0001	14.1161	2016-07-07T00:00:00Z
AVX	O	1000	0.99	0.0015	0.74	2017-08-23T00:00:00Z
AVX	C	10	53.34	1.01	40	2016-03-05T00:00:00Z
AVX	L	425	10.76	0.0129	9.48	2017-05-09T00:00:00Z
AVX	L	410	10.76	0.0134	9.48	2017-10-03T00:00:00Z
KOA Speer	E	4000	0.29	0.00004	0.25	2016-04-16T00:00:00Z
KOA Speer	K	4000	0.29	0.00004	0.25	2017-05-19T00:00:00Z
KOA Speer	H	4000	0.29	0.00004	0.25	2016-07-06T00:00:00Z
TE Connectivity/Raychem Tubing	C	5	112.35	5.65	55.59	2017-08-05T00:00:00Z
TE Connectivity/Raychem Tubing	I	6	112.36	4.625	57.19	2016-09-18T00:00:00Z
TE Connectivity/Raychem Tubing	J	5000	0.03	0.0016	0.0172	2017-03-21T00:00:00Z
TE Connectivity/Raychem Tubing	K	5000	0.03	0.0016	0.0172	2016-02-05T00:00:00Z

2. Calculate Total Revenue from Table B

```
select sum((s.quantity)*(s.unit_price)) as Total_Revenue from sales s
```

Total_Revenue
22381.960000000003

3. Display the top 10 Products from Table B which made highest profit

```
select distinct top 10 s.product, sum((S.unit_price - S.unit_cost)) as profit
from sales s
group by s.product
order by profit desc
```

product	profit
C	70.1
I	56.7982
B	44.77999999999997
F	9.113900000000001
D	5.41
N	5.41
L	2.5599999999999987
A	1.9761999999999986
G	1.9075999999999986
M	1.3926000000000016

4. Display total cost, total price and Margins grouped by Parent_MFG in table A

```
select  m.parent_mfg, sum(s.quantity*s.unit_cost) as total_cost,
sum(s.quantity*s.unit_price) as total_price,
sum((S.unit_price - S.unit_cost)/(s.unit_price))as margin
from sales s
left outer join MFG m on m.mfg_code = s.mfg_code
group by m.parent_mfg
```

parent_mfg	total_cost	total_price	margin
ACG|Amphenol Connector Group	1881.8514	2072.59	0.8511329136261862
AVC|AVX Corporation	9055.8	10508	0.74053720642135
KCC|KOA Corporation	3000	3480	0.4137931034482757
KCO|KEMET Corporation	3422.7	4785.46	1.7770655539585263
TEG|TE Connectivity Group	793.09	1535.9099999999999	1.8495513118793099

5. Display the highest selling product and the second highest selling product

```
select top 2 s.product,
sum((S.unit_price) * (S.quantity)) as most_sold
from sales s
group by s.product
order by most_sold desc
```

product	most_sold
L	8984.6
K	2236.5

6. Display the Total Cost and Total Revenue based on Type from Table C and order it in a descending order

```
select p.type, sum(s.quantity*s.unit_cost) as total_cost,
sum((s.unit_price) * (s.quantity)) as total_revenue
```

```
from sales s
inner join product p on p.product = s.product
group by p.type
order by total_cost, total_revenue desc
```

type	total_cost	total_revenue
COMM	2719.95	3928.15
EREL	14190.2294	16737.769999999997

7. Find which Quarter sold highest number of products

```
select top 1
datepart(yy, date) as year,
datepart(qq, date) as quarter,
sum(s.quantity) as total_sold
from sales s
group by datepart(yy, date), datepart(qq, date)
order by total_sold desc
```

year	quarter	total_sold
2017	1	5015

8. Find which quarter made the highest sale in ‘AUTOMOTIVE’ category in the last year

```
select quarter
from
(select top 1 p.category,
datepart(yy, date) as year,
datepart(qq, date) as quarter,
sum((s.unit_price) * (s.quantity)) as sale
from sales s
left outer join product p on p.product = s.product
where  p.category = 'AUTOMOTIVE' and datepart(yy, s.date) = (datepart(yy, getdate()) - 1)
group by datepart(yy, date), datepart(qq, date),p.category
order by sale desc) as Q
```

quarter
2

9. Find the Products in table C that haven’t sold anything ever

```
select distinct p.product as Not_sold_product
```

```
from product p
where p. product not in (select s.product from sales s)
```

Not_sold_product
P