

Q1:

```
1 SELECT title,DATEDIFF(cin, cout) AS DateDiff
2 FROM spl_2016.inraw
3 order by DateDiff desc
4 limit 10;
```

```
1 SELECT
2     title,
3     DATEDIFF(cin, cout) AS DateDiff,
4     cin,
5     cout
6 FROM spl_2016.inraw
7 WHERE cout > '2005-01-01'
8 order by DateDiff desc
9 limit 10;
```

```
1 #shortest by default
2 SELECT
3     title,
4     DATEDIFF(cin, cout) AS DateDiff,
5     cin,
6     cout
7 FROM spl_2016.inraw
8 WHERE cout > '2005-01-01'
9 order by DateDiff
10 limit 10;
```

Q2:

```
1 SELECT
2     deweyClass,
3     COUNT(bibNumber) as BookNumber
4 from deweyClass as D
5 group by D.deweyClass
6 order by BookNumber desc
7 limit 100;
```

Q3:

```
1  select
2      final.bigClass,
3      #dewey class
4      sum(final.copies) as itemNums # each class has how many copies(sum up from
different bib)
5  from (
6      select
7          DISTINCT bibToCopies.bibNumber,
8          bigClass,
9          copies
10     from (
11         /* A subtable contains bibNumber and number of copies*/
12         select
13             count(itemNumber) as copies,
14             bibNumber
15         from
16             spl_2016.inraw
17         where
18             cout > '2022-01-01' # filter it a little bit to make the query
faster
19             group by
20                 bibNumber
21         ) as bibToCopies
22     inner join (
23         /* A subtable contains bibNumber and DeweyClass info,
24         equivalent to the deweyClass table */
25         select
26             bibNumber,
27             SUBSTRING(deweyClass, 1, 3) as bigClass #Make dewey class in 3
digits
28         from
29             spl_2016.inraw
30         where
31             deweyClass > '' #filter out the empty strings
32             and cout > '2022-01-01'
33     ) as bibToClass on bibToClass.bibNumber = bibToCopies.bibNumber # join
the two subtables
34     ) as final # final table
35 group by final.bigClass
36 order by itemNums desc
37 limit 100;
```

Q4:

```
1 select
2     count(itemNumber) as copies,
3     bibNumber
4 from spl_2016.inraw
5 group by bibNumber
6 order by copies desc
```

```
1 select
2     distinct(title),
3     bibNumber
4 from spl_2016.inraw
5 where
6     bibNumber in (
7         '3030520',
8         '3489506',
9         '2469502'
10    )
```