

**Question 3.** Following a new rule of the company, some customers' insurance rates need to be adjusted. The following query counts the number of such customers.

```
Select count(*)  
From customer  
Where (age > 20 and ticketNumber >= 5) or age < 18
```

Assume that the data distribution of the customer relation is as follows:

Age	percentage
0-20	10%
20-40	40%
40-60	35%
> 60	15%

Ticket number	Percentage
0	50%
1	10%
2	20%
3	15%
4	3%
5	1%
6	0.5%
>6	0.5%

How would you evaluate this query under the following circumstances?

- (a) No index.
- (b) Only a clustered index on age.
- (c) Only a clustered index on ticketNumber.
- (d) Separate indices on age and on ticketNumber, clustered on age.
- (e) Separate indices on age and on ticketNumber, clustered on ticketNumber.
- (f) Separate indices on age and on ticketNumber, both non-clustered.