

## Leadsquared Report Developer Assignment

**1. Write a query to print the number of employees per department in the organization**

**Answer:**

```
select department, count(*) from employee group by department;
```

**2. Write an SQL query to find the name of the top-level manager of each department.**

**Answer:**

```
select first_name from employee where manager == null;
```

**3. Write a query to find the total incentive received by a given employee in a given month.**

**Answer:**

```
select employee_ref_id, sum(incentive_amount) from incentives group by employee_ref_id where incentive_date between #31-Mar-13# and #1-May-13#;
```

**4. Write a query to find the month where employees got maximum incentive.**

**Answer:**

```
select employee_ref_id, incentive_date, max(incentive_amount) from incentives group by employee_ref_id;
```

**5. You have two sand timers, which can show 4 minutes and 7 minutes respectively. Use both the sand timers (at a time or one after other or any other combination) and measure a time of 9 minutes.**

**Answer:**

a. First of all we will use 4 minutes sand timers and once 4 min will end, turn it upside down.

Which will count 8 min.

b. we will start 7 min sand timers also at the same time while starting first 4 min sand timers.

c. when 7 min sand timer will end then 1 min will remain in 4 min 2<sup>nd</sup> sand timer. So, we will turn 7min sand timer to count 1 min in this.

d. Once 2<sup>nd</sup> 4min sand timer end we will turn 7 min upside down to count last one min.

e.  $8 + 1 = 9$

**6. John and Mary are a married couple. They have two kids, one of them is a girl. Assume safely that the probability of each gender is 1/2. What is the probability that the other kid is also a girl?**

**Answer:**

Boy    Boy

Boy    Girl

Girl    Boy

Girl    Girl

Probability is 1/3.

**7. The following appeared as part of a campaign to sell advertising time on a local radio station to local businesses.**

**Ron's Cafe began advertising on our local radio station this year and was delighted to see its business increase by 10 percent over last year's totals. Their success shows you how you can use radio advertising to make your business more profitable.**

**Discuss how well reasoned you find this argument. In your discussion be sure to analyze the line of reasoning and the use of evidence in the argument. For example, you may need to consider what questionable assumptions underline the thinking and what alternative explanations or counterexamples might weaken the conclusion. You can also discuss what sort of evidence would strengthen or refute the argument, what changes in the argument would make it more logically sound and what, if anything, would help you better evaluate in conclusion.**

**Answer:**

The author in above argument says that Ron's cafe business increased by 10% compared to last year by advertising in the local Radio Station. From which conclusions comes that other businesses may do same thing to see growth in their businesses. But author is not saying that other businesses must do it. If it suit them then they can do it.

Ron's cafe might have seen this growth because people usually listen radio while taking morning tea. Due to which Ron's cafe has the advantage. But other might not have it. But there can be other factors too which led to the 10% growth. Like changing cafe head, cafe chef, staff or menu. There are also possibility that Ron might have also done advertisement other media.

Even if it is granted that radio advertising is responsible for the Ron's success, another assumption must be made before we can conclude that radio advertising will result in increased profits for businesses in general. We must also assume that what is true of the Ron's will likewise be true of most other businesses.

But there are all kinds of important differences between cafes and other businesses that could affect how radio audiences react to their advertising. We cannot safely assume that, because a small restaurant has benefited from radio advertising, any and all local businesses will similarly benefit.

In conclusion, it would be imprudent for a business to invest in radio advertising solely on the basis of the evidence presented. To strengthen the conclusion, it must be established that radio advertising was the principal cause of increased business at the Ron's cafe.