Section 1

Ans1. This one can simply be achieved by group-by clause

Select count(\*)

from Employee

group by Department

Ans2. In this one we’ll use IN Clause

Select Manager from Employee

Where Department IN ( Select Department

from Employee

group by Department )

For the rest of the 2 questions data given is insufficient because we don’t have any column to differentiate between any two months. We only have dates and there are multiple dates for each month so it’s not possible to group according to a particular month.

Section 2

Ans5.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Minutes passed | Sand left in 7 minute timer | Sand left in  7 minute timer  (other side) | Sand left in  4 minute timer | Sand left in  4 minute timer  (other side) |
| 0 | 7 | 0 | 4 | 0 |
| 4 | 3 | 4 | 0 | 4 |
|  |  |  |  | This one is flipped to the top |
| 7 | 0 | 7 | 1 | 3 |
|  | This one is flipped to the top |  |  |  |
| 8 | 6 | 1 | 0 | 4 |
|  |  | This one is flipped to the top |  |  |
| 9 | 7 | 0 | 0 | 4 |

This is how we’ll measure the 9 minutes.

Ans6.

There are total 4 possibilities

gg,bb,gb,bg

But it’s given that first one is a girl so

Only two possibilities

gg,gb

So probability of both being girls is : ½

Ans7.

I’ll answer this question by quoting some advantages and some advantages and disadvantages of radio advertising and assessing whether it works in each and every scenario or not.

### It is true that radio allows you to target specific demographics

Radio stations cater for particular audiences and use different formats offering brands a great opportunity to speak directly to the market segment they’re targeting. Whether you want to impress teenagers or get the attention of families, there is a radio station that can broadcast your message to the right group of people.

So Ron’s Cafe may have benefitted from the radio marketing if he did

### Radio advertising is less expensive

Of all the media we can use for advertising radio is one of the cheapest and also appeals to a larger number of people.

Just think of the production costs associated with creating an ad for TV: actors, costumes, makeup, lighting just to name a few.

But even all these benefits are not enough to support his assessment fully .

### Radio advertising is short lived

The impact of radio advertising is not that deep-rooted so this strategy will not be reliable in the long term .

### Lack of visuals

This one is huge especially in cases of business like Ron’s because there are no visual elements to play with so it’s harder to convey the exact product appeal and motive to the audience.