

Question 1.

Table 1.

Pedestrians, Bicycles, Motorcycles, Four-wheeledVehicles

They all represent the number of each kind of victims, so they are all **quantitatives**.

Table 2.

PedestriansMale, PedestriansFemale, BicycleMale, BicycleFemale, MotorcyclesMale, MotorcyclesFemale, Four-wheeledVehicleMale, Four-wheeledVehicleMale

They all represent the number of each kind of victims, so they are all **quantitatives**.

Table 3.

PedestriansMale, PedestriansFemale, BicycleMale, BicycleFemale, MotorcyclesMale, MotorcyclesFemale, Four-wheeledVehicleMale, Four-wheeledVehicleMale

They all represent the number of each kind of victims, so they are all **quantitatives**.

Dead, injured

They are both **categorical**.

Table 4.

PedestriansMale, PedestriansFemale, BicycleMale, BicycleFemale, MotorcyclesMale, MotorcyclesFemale, Four-wheeledVehicleMale, Four-wheeledVehicleMale

They all represent the number of each kind of victims, so they are all **quantitatives**.

Dead, injured

They are both **categorical**.

Age

It separates the number of victims by different age ranges. So, it is **nominal (ordered categorical)**.

Question 2.

Table 1.

Table 1 represent the number of each kind of victims by the height of the bar. And the main attribute is just the number, so the colors are same. It uses area (2D size) as the channel attribute, it is pretty effective. But it can use length instead.

Table 2.

Besides the elements in table 1, table 2 uses another color to distinguish men and women. And it also takes length as the channel to compare men and women in each kind of victims. So, it is effective. It can also be represented by length.

Table 3.

Table 3 adds the categories dead and injured. But the attribute is still length which is with a good effectiveness. So, to distinguish dead and injured, it uses area (2D size).

Table 4.

Table 4 takes area as the channel. It is effective enough but less than table 1 and table 2. It takes area as the channel. Though the areas match the true proportions, some small numbers may longer than bigger ones. And the labels are not that clear. It is pretty complex to read. So, it should be separated into multiple chart depiction.