1. All data visualizations map data values into quantifiable features of the resulting graphic.These features are aesthetics. Examples are size and shape.
2. quantitative and qualitative
3. Variables holding qualitative data are factors and different categories are called levels. The main difference is that the levels of a factor are without order, but factors can also be ordered.
4. (i) quantitative

(ii) qualitative

1. Factor
2. Ordered - My height is 6.3 inches

Unordered - gender, grades

1. Axis which represents same nature and units data
2. Like in question 15, when we interchange the weekend gross an movies we make is beautiful
3. Periodic data set can be best visualized in polar coordinates
4. (i) Qualitative color scale - distinguish discrete items that do not have an intrinsic order.

(ii) Sequential color scale - represent data values, such as income, temperature.

(iii) Diverging color scale - works when a value is positive or negative.

(iv) Accent color scales - color scales that contain both a set of subdued colors and a

matching set of stronger, darker, and/or more saturated colors.

1. purple to green color is more appropriate for effective visualization communications with humans.
2. 1) Chicago  
   2) Death Valley  
   3) Chicago  
   4) San Diago
3. a) Qualitative  
   b) Sequential  
   c) Diverging  
   d) Accent
4. Accent
5. The Weekend gross is on y and movies on x. They should be interchanged.
6. An abrupt start. Age should be extended on left side.
7. Image Uploaded.
8. I would use Qualitative Color Scale.
9. It will increase. It will get hotter approximately 1.5 degrees.