1. Encode the following values in 20 different ways

In another PDF (35_75.pdf)

2. Data encoding terms

- **Mark:** marks are the basic geometric primitives that show data items or the links between them.
- **Channel:** an attribute that indicates how the marks appear.
- **Expressiveness:** the principle that implies that visual encoding should express all of, and only, the attributes of data.
- **Effectiveness:** the principle that implies that the more important an attribute is, the more effective the channels used to encode it should be.
- **Separability:** when each property can be judged independently.
- **Integrality:** when different properties have multiple weak matches.

3. Color Palettes

No submission required

4. Effectiveness

lab3_task4.ipynb

5. Color Blindness

P(colorblind) = P(protanopia) + P(deuteranopia) + P(tritanopia)

= 2.45% + 6.10% + 0.011%

= 0.08561

P(not colorblind) = 1 – P(colorblind)

= 0.91439

P(none colorblind) = P(not colourblind)^3

= 0.76453

Therefore:

P(at least 1 is colorblind) = 1 – P(none colorblind)

= 0.23547

= 23.55% (Answer)

6. Color Blindness

task6.ipynb

7. Color Pallets – Dataset Handling

task7.ipynb