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Homework Assignment 1

1. Results and Codes
   1. A screenshot of a social media post

      Description automatically generatedLinear Function:
   2. A screenshot of a cell phone

      Description automatically generatedQuadratic Function:
   3. A screenshot of a social media post

      Description automatically generatedLog Function:
   4. A screenshot of a cell phone

      Description automatically generatedA screenshot of a social media post

      Description automatically generatedSigmoid Function:
2. Choices

Which statement is correct? (Mark One)

1. i) unsupervised learning with discrete predictions;

ii) supervised learning with continuous predictions;

iii) supervised learning with continuous predictions;

1. i) supervised learning with discrete predictions;

ii) supervised learning with discrete predictions;

iii) unsupervised learning with discrete results;

1. i) supervised learning with discrete predictions;

ii) supervised learning with continuous predictions;

iii) unsupervised learning with discrete results;

1. All the three scenarios can be solved by unsupervised learning.
2. Writings

Personally, I get hot easily and unfortunately, I prefer my surroundings to be cooler rather than warmer. Deciding if I am hot outside is a classification machine learning task that I have experienced in my life. For deciding how hot it is outside, the inputs that I take into account is the temperature, humidity, and weather. The output of deciding how hot it is outside is the ultimate choice of whether or not I think that it is hot outside. The goal is the decide whether or not it is hot outside and deciding if it is ideal for me to stay inside or dress more appropriately to stay cool.

Through my experience of going outside all of my life, I have found the ground truth when it comes to deciding whether it is hot outside. The ground truth is that when it is over 85 degrees outside, no matter the conditions, it is hot outside.

Training: temperature, humidity

Validation: % of clouds, weather

Testing: random values for temperature, humidity, % of clouds, weather