OPENCAMPUS.sh

Machine Learning With TensorFlow

INTRODUCTION TO TENSORFLOW PART I

- **Quiz**

- **Assignments**

- **Breakout Discussions**

- **Questions**

- **Projects**

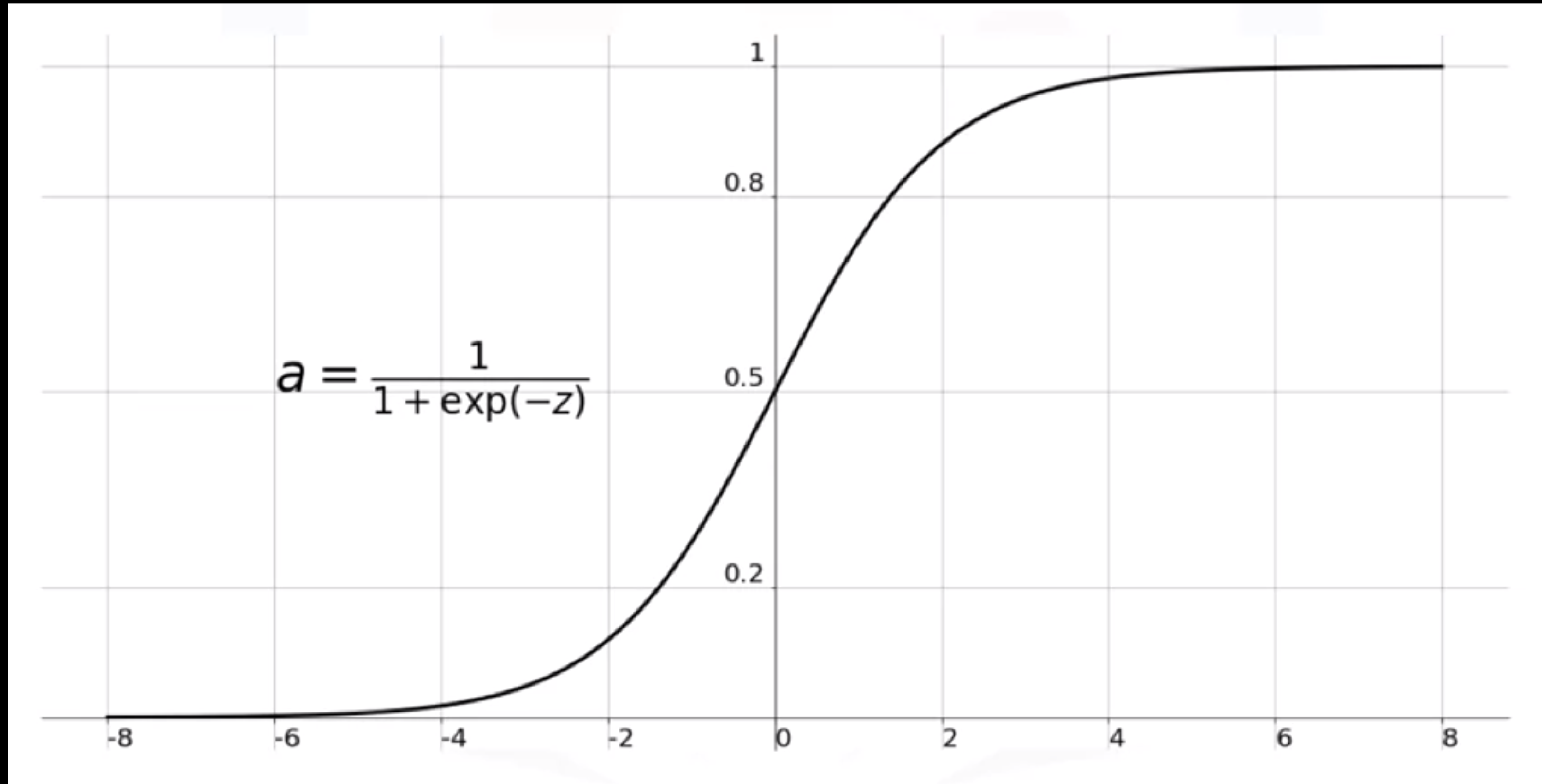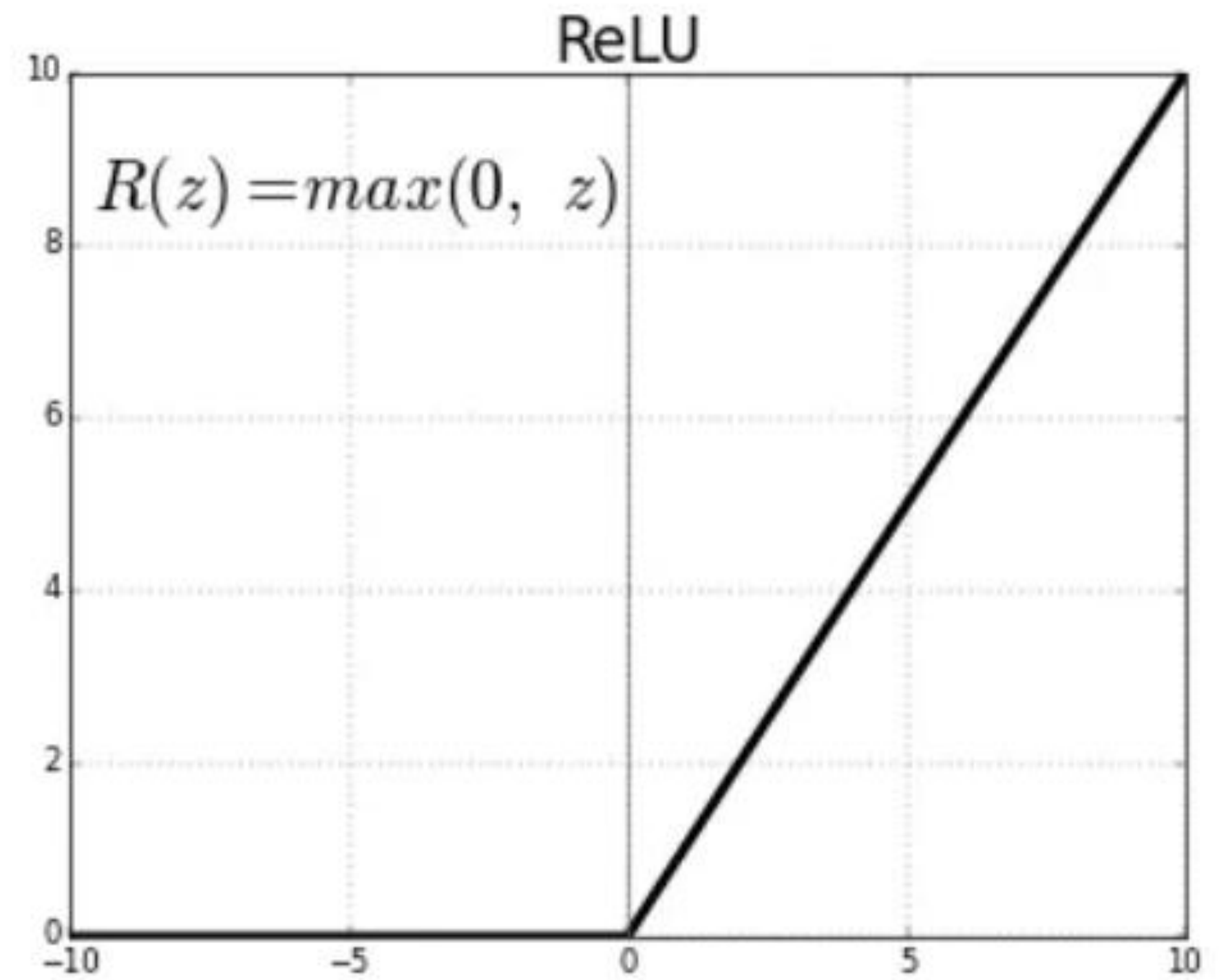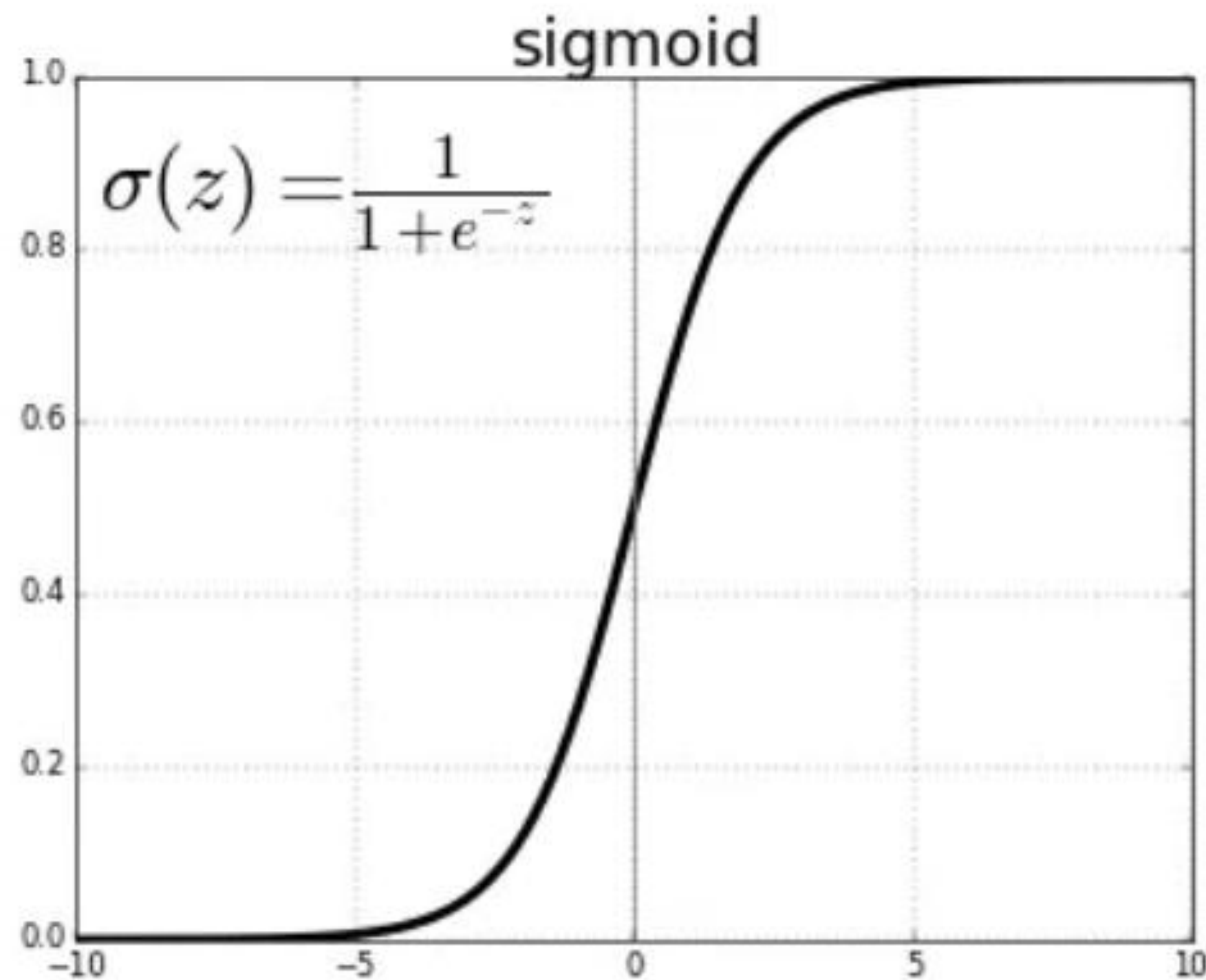QUIZ

https://forms.office.com/e/FmEJScNQZw

ASSIGNMENTS

ASSIGNMENTS:
WHO WILL PRESENT NEXT?

SIGMOID FUNCTION

$$a = \frac{1}{1 + \exp(-z)}$$

SIGMOID VS RELU

sigmoid

$$\sigma(z) = \frac{1}{1+e^{-z}}$$

ReLU

$$R(z) = max(0, \ z)$$

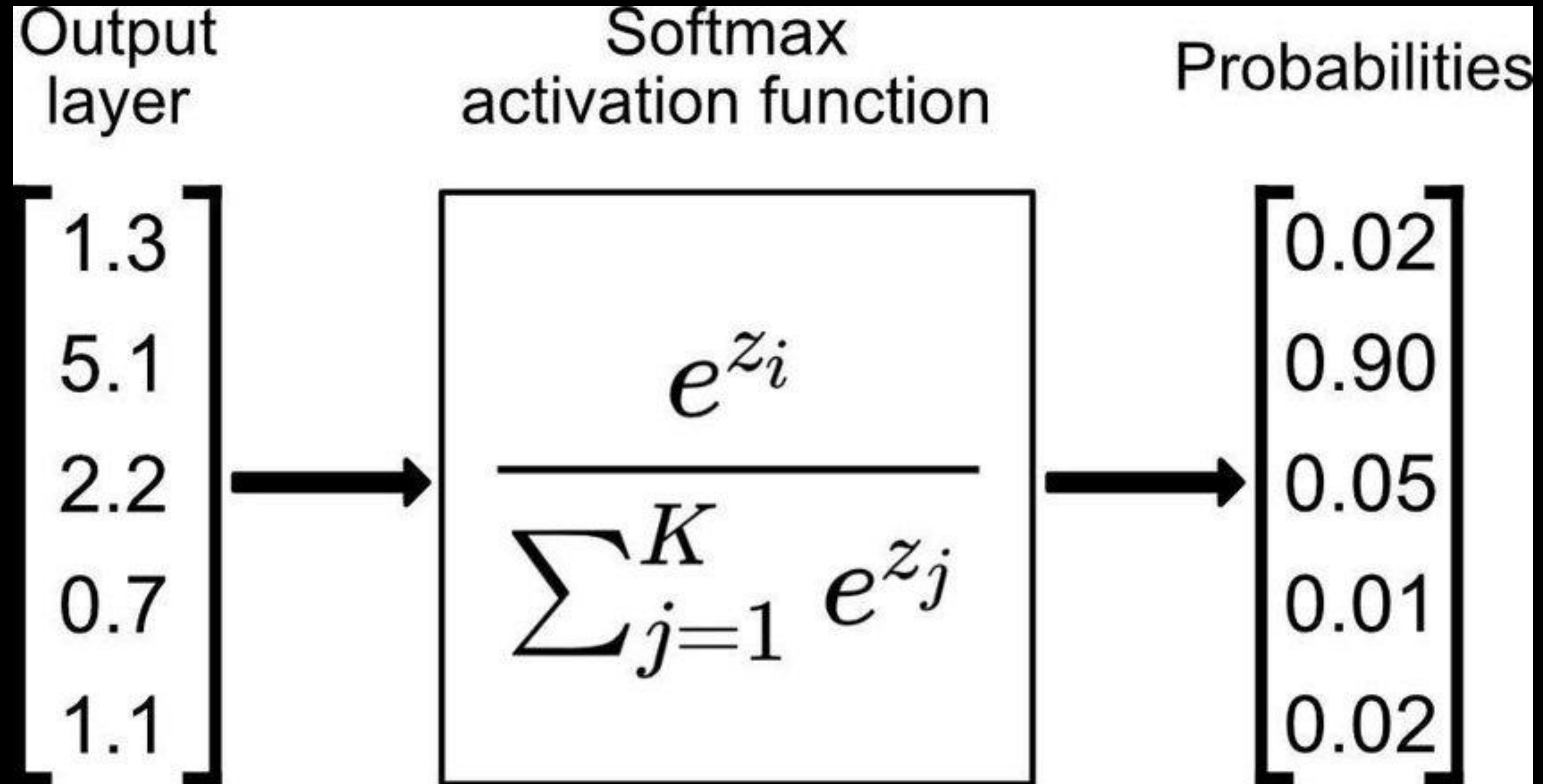Source: https://towardsdatascience.com/activation-functions-neural-networks-1cbd9f8d91d6

SOFTMAX FUNCTION

BREAKOUT DISCUSSIONS

- Consider a comprehensive dataset, such as the UCI Machine Learning Repository's Adult Income dataset, which contains demographic features like age, education, occupation and marital status.

- Discuss the variety of machine learning tasks that could be accomplished using this single dataset.

- How would the choice of task influence the model architecture (input/output)?

Link to dataset: https://archive.ics.uci.edu/dataset/20/census+income

PROJECTS MILESTONES

- 24.04   Project pitches
- 01.05   Further Project Proposals and Discussions in Mattermost
- 08.05   Form Groups
- 15.05   Literature Review (*Submission Deadline: 18.05*)
- 22.05   Dataset Characteristics
- 05.06   Definition of Model Evaluation
- 12.06   Baseline Model Estimation (*Submission Deadline: 15.06*)
- 22.06   Individual Feedback Sessions
- 03.07   Project Presentations, Part I
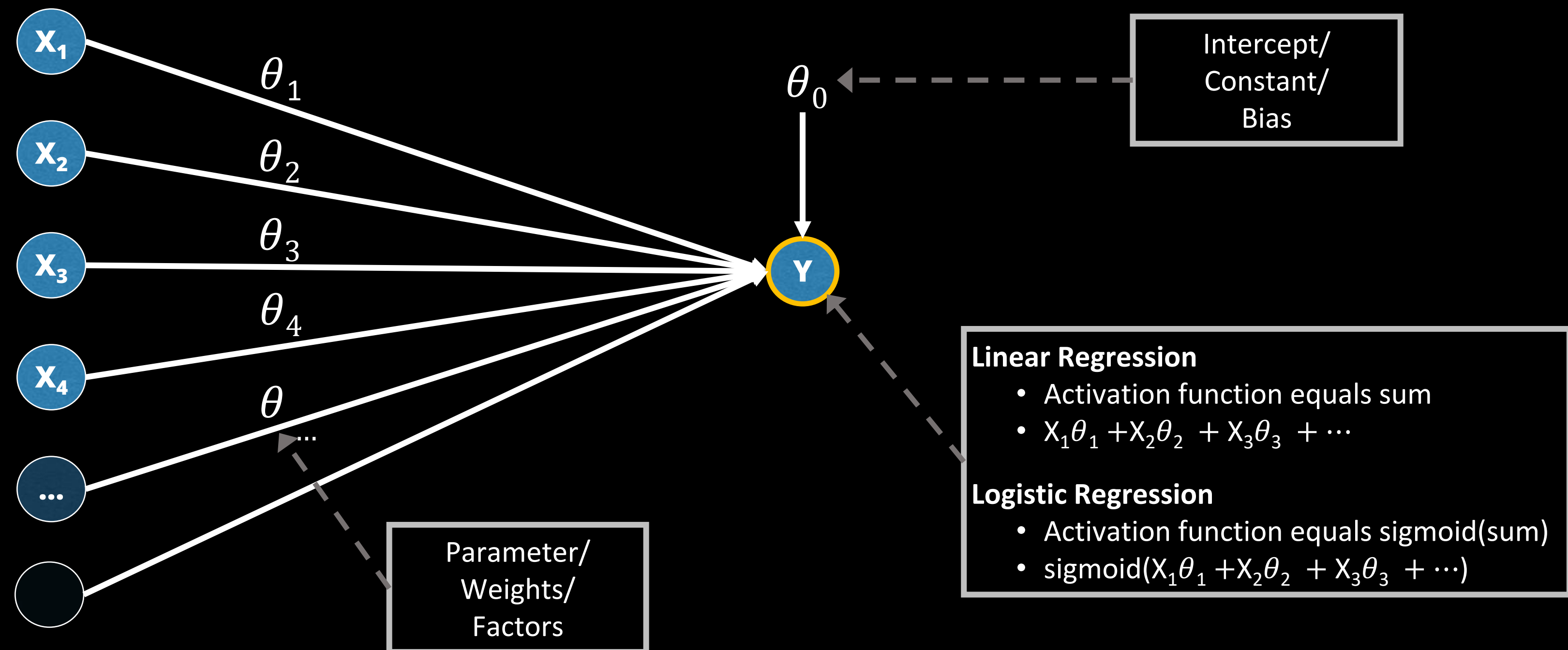- 10.07   Project Presemtations, Part II

GROUP DISCUSSION

- Why is it beneficial to adjust all features and labels of the network to values between 0 and 1 or relatively close to zero?

- What are the differences/similarities between the approach used in Exercise 1 of the homework and a linear regression?

TASKS UNTIL NEXT WEEK

- **Complete Project Proposals and Discuss them in Mattermost**

- **Completion of the learning material of week 3 and 4 of the course "introduction to TensorFlow"**

- **Complete Assignment 3 and 4 from the course handbook**