

Worksheet 03

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Topics

- Intro to DS

Linear Algebra Review

If you need a linear algebra review, please read through the [following pdf](#) before next class

Intro to Data Science

a) what property must a hypothesis have?

Testable

b) what examples would you have wanted to try?

(2,4,10)

c) Poll 1

B

d) Given the hypothesis $(x, 2x, 3x)$, for each of the following, determine whether they are positive or negative examples:

- (2, 4, 6)
- (6, 8, 10)
- (1, 3, 5)
- (2,3,6): Positive -(6,8,10): Negative
- (1,3,5): Negative

e) Poll 2

C

f) Describe steps of a Data Science Workflow

- Data Processing
- Exploratory Data Analysis
- Feature Extraction
- Creating Model

g) Give a real world example for each of the following data types:

- record
- graph

- image
- text
- Record: Student database
- Graph: Road network
- Image: X-ray scans
- Text: News article

h) Give a real world example of unsupervised learning

Colour clustering in image processing

i) Give a real world example of supervised learning

Spam filtering