

# GEMS OF TCS

## LINEAR REGRESSION

---

Sasha Golovnev

December 6, 2021

# CLASSES OF LEARNING PROBLEMS

- Classification
- Ranking
- Regression
- Clustering
- ...

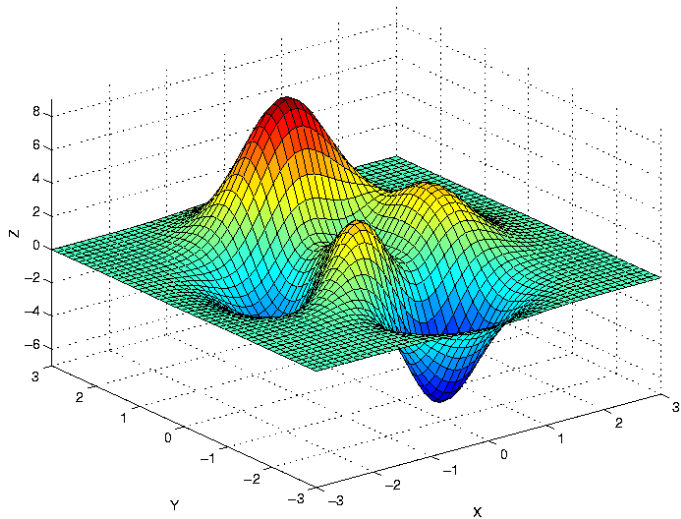
# EXAMPLE

## EXAMPLE

- Predict # of covid cases given city population

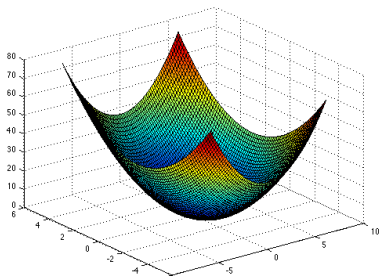
# LINEAR REGRESSION

# GRADIENT DESCENT



# GRADIENT DESCENT FOR LINEAR REGRESSION

# QUADRATIC LOSS FUNCTION





# LEARNING RATE