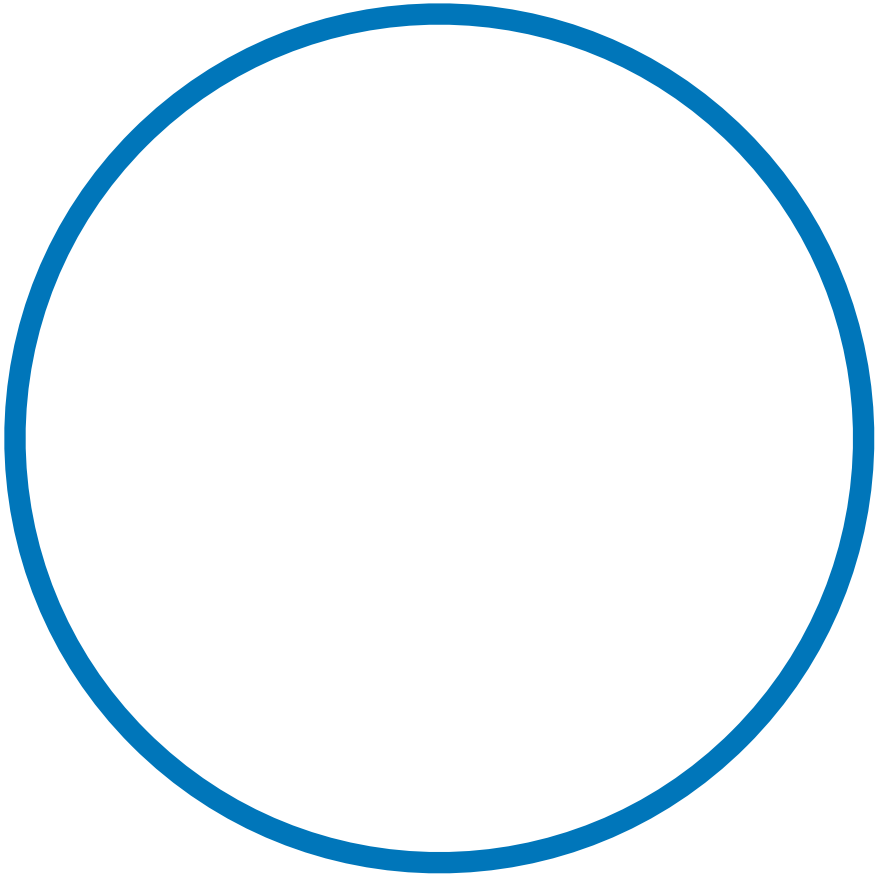




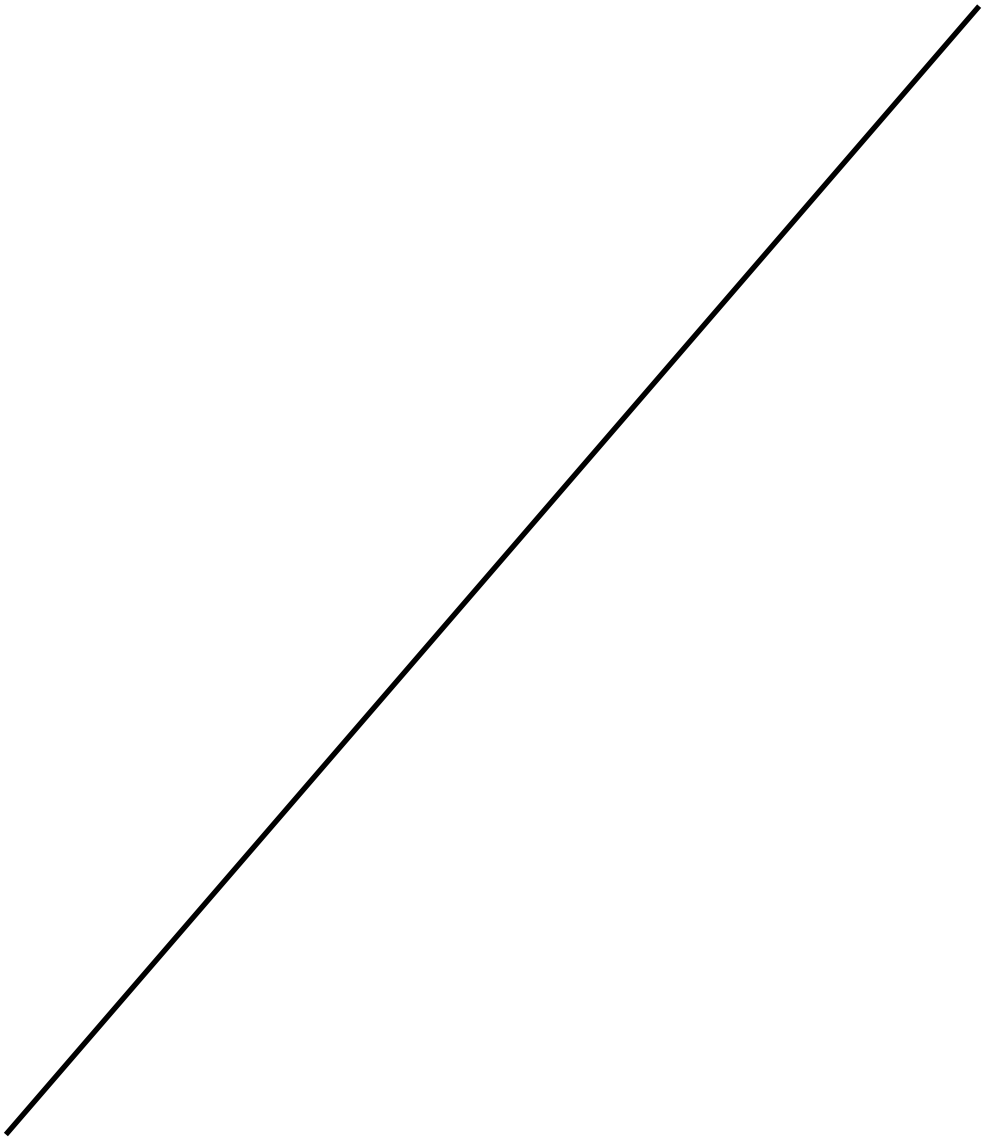
DVH Analytics

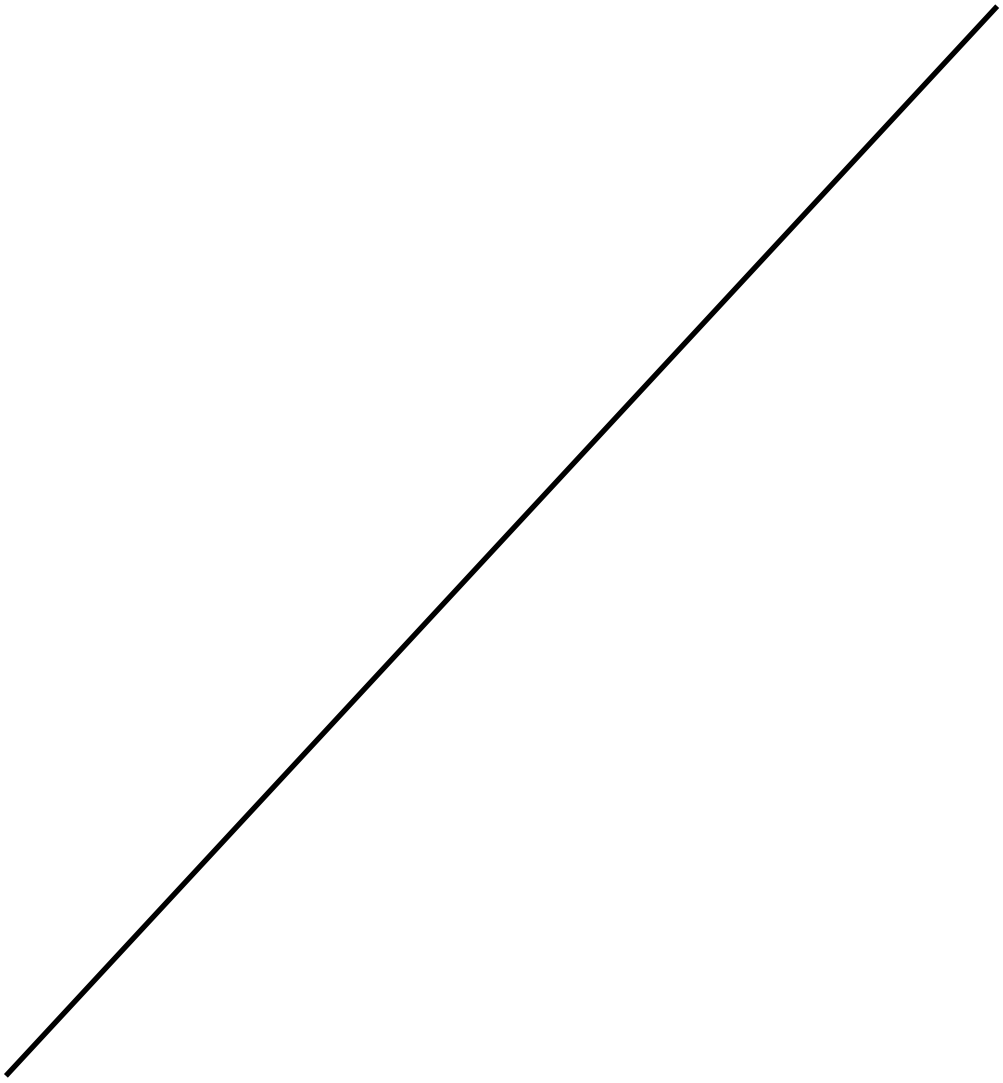
SQL Database Design

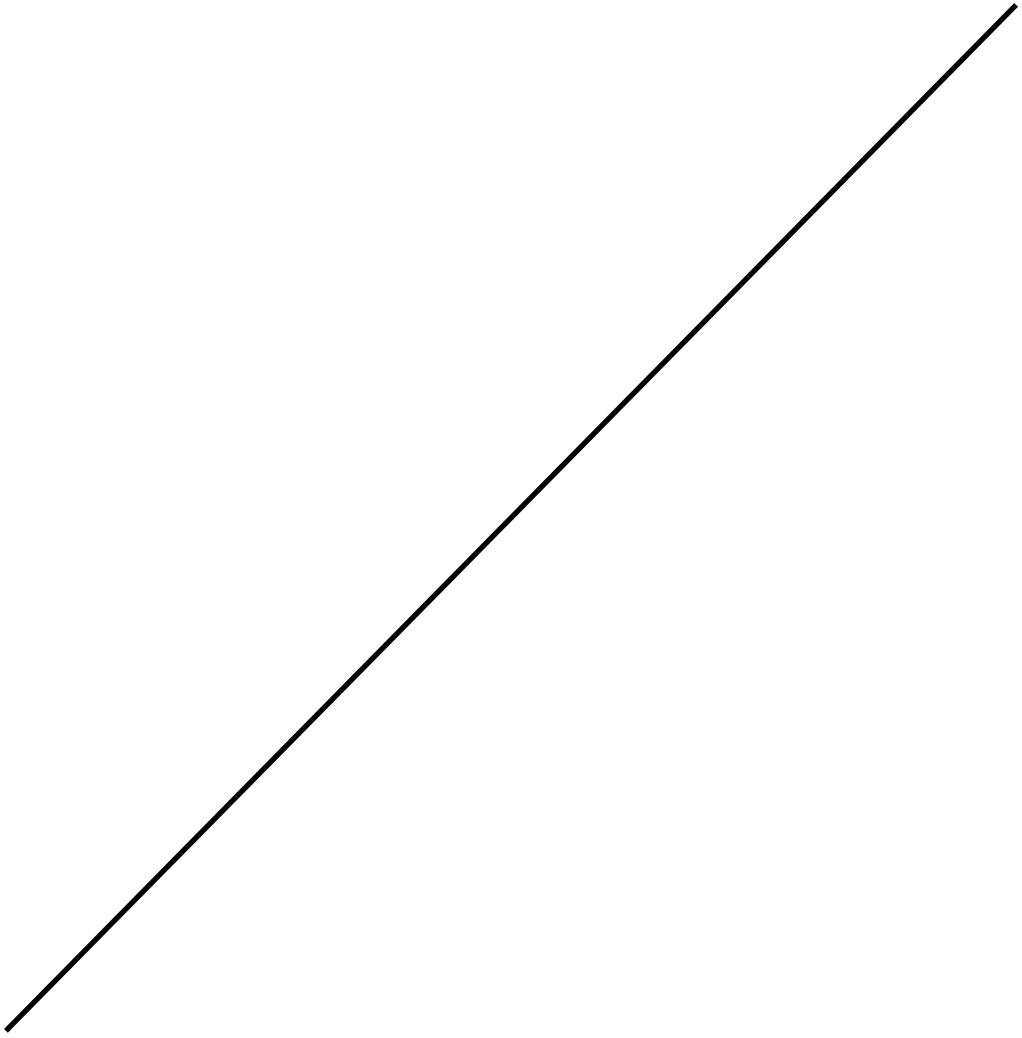
PTVDistance

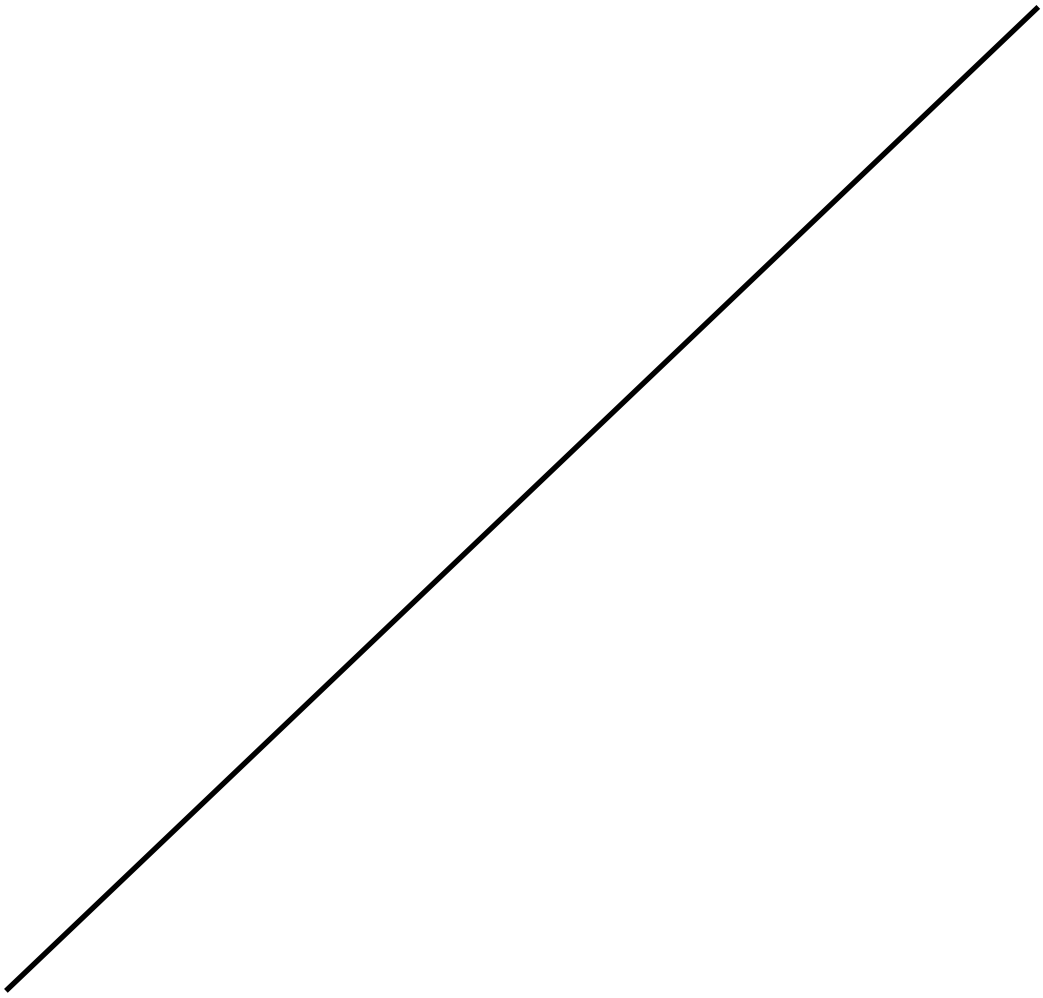


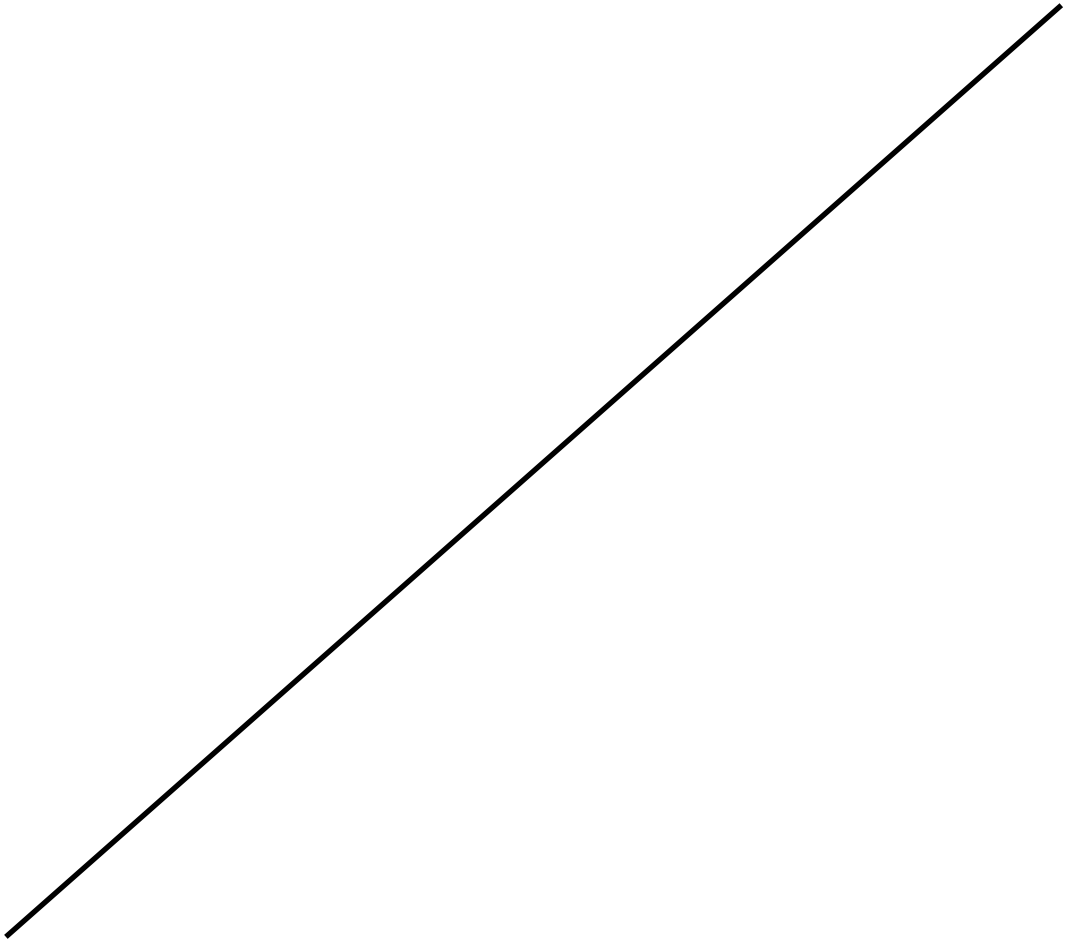
- Records a sample of the distribution of PTV-OAR Distances
- Using SciPy, distances between all PTV-OAR point pairs are calculated in 3D.
- The min, mean, median, and max of these numbers are recorded in the database.

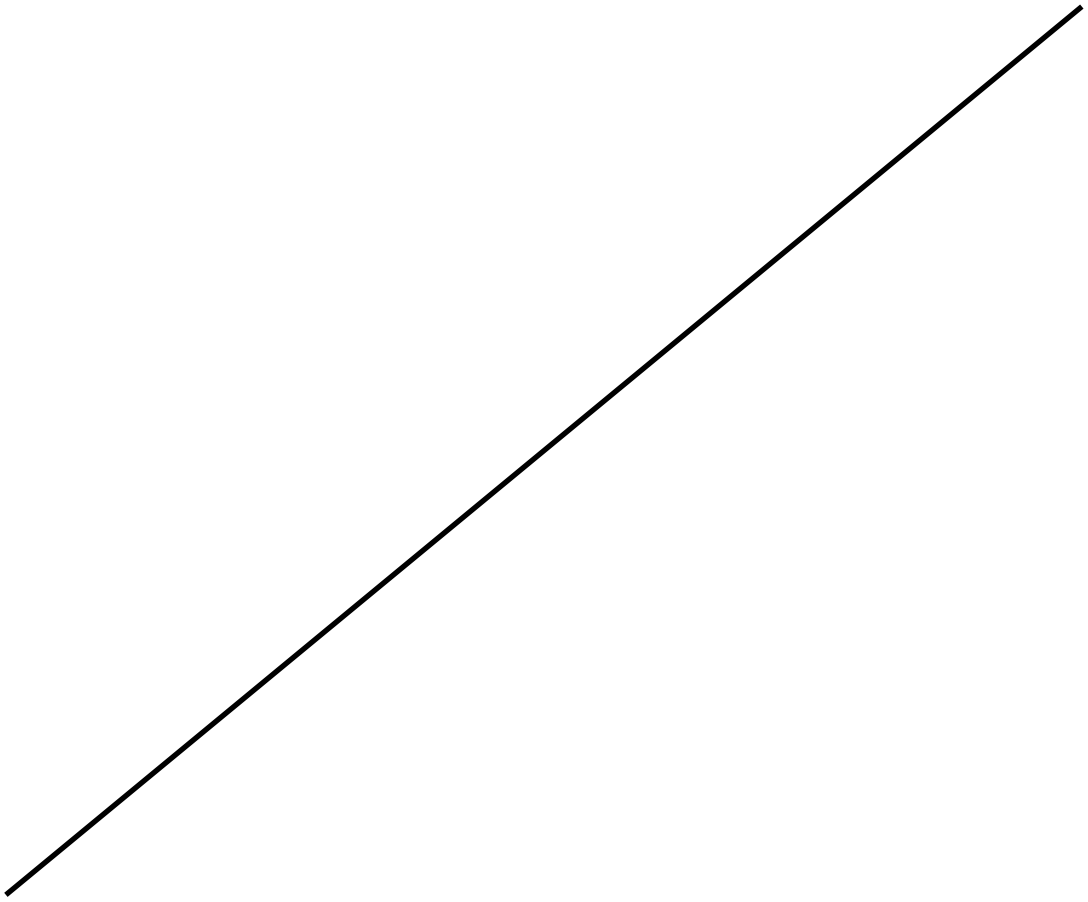


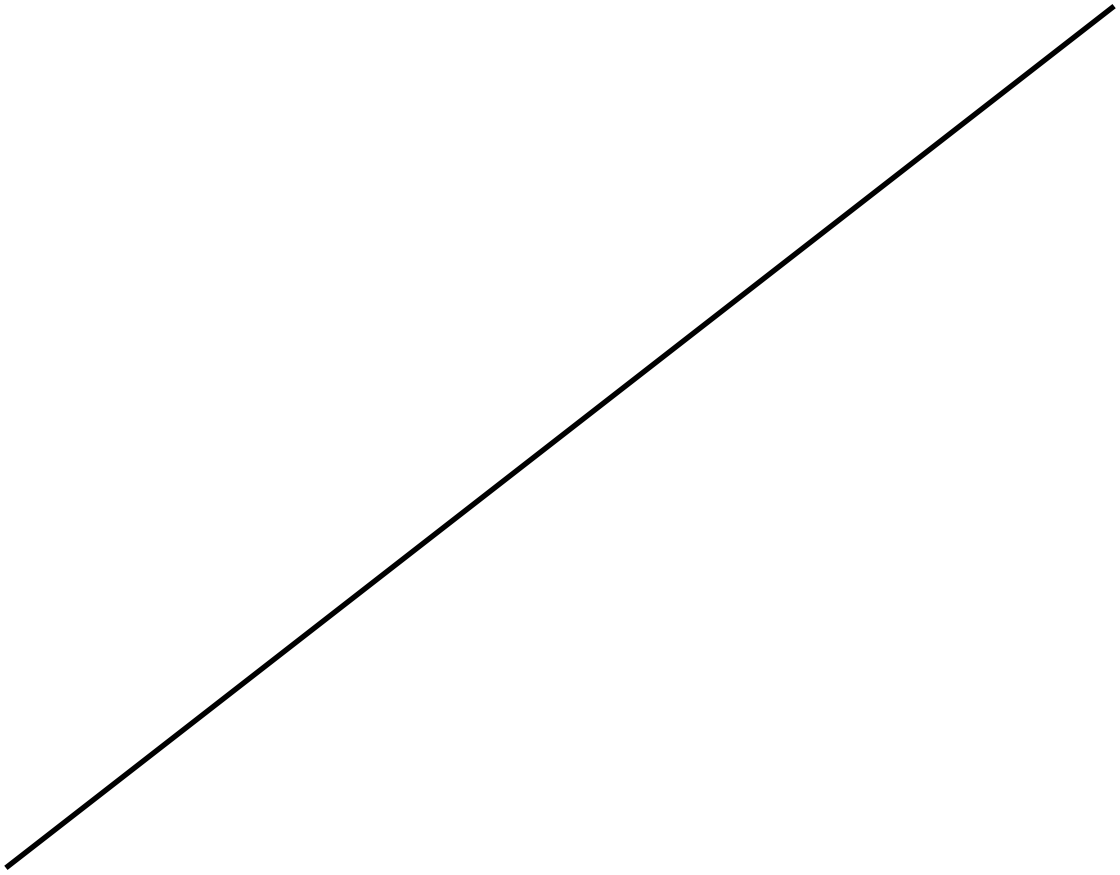


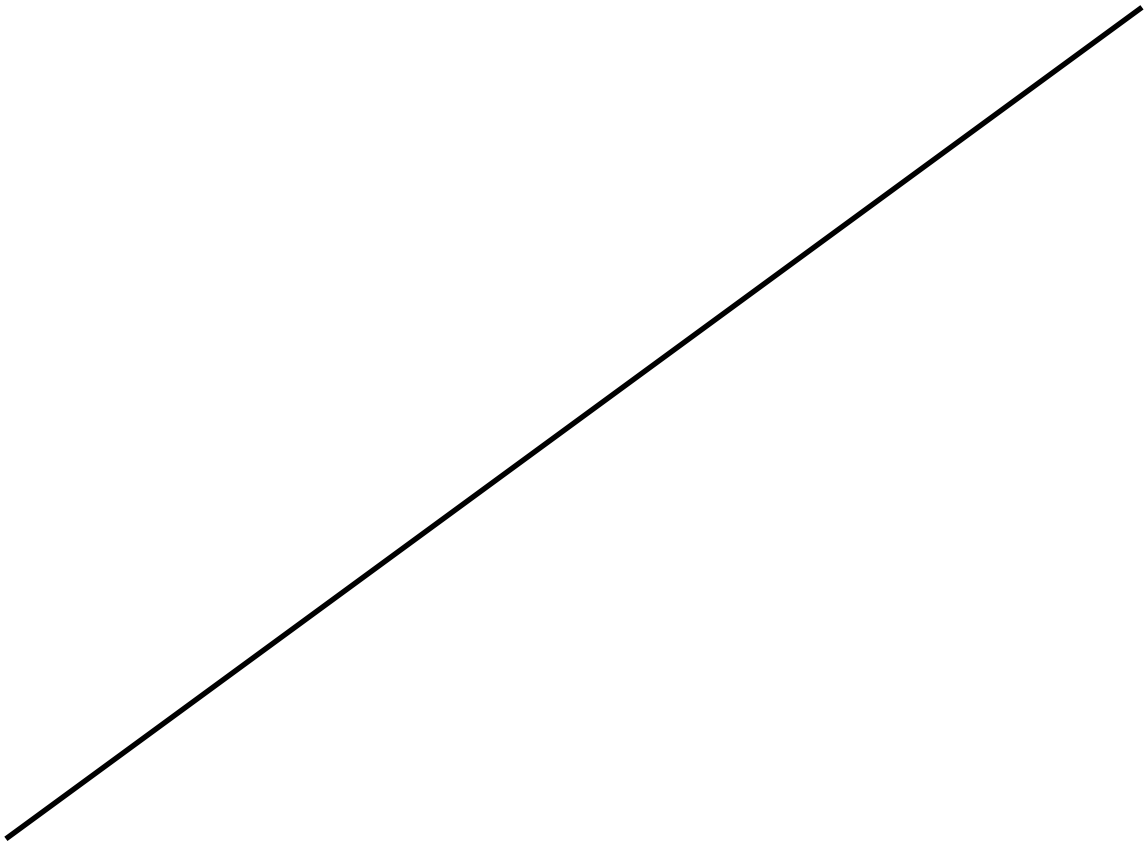


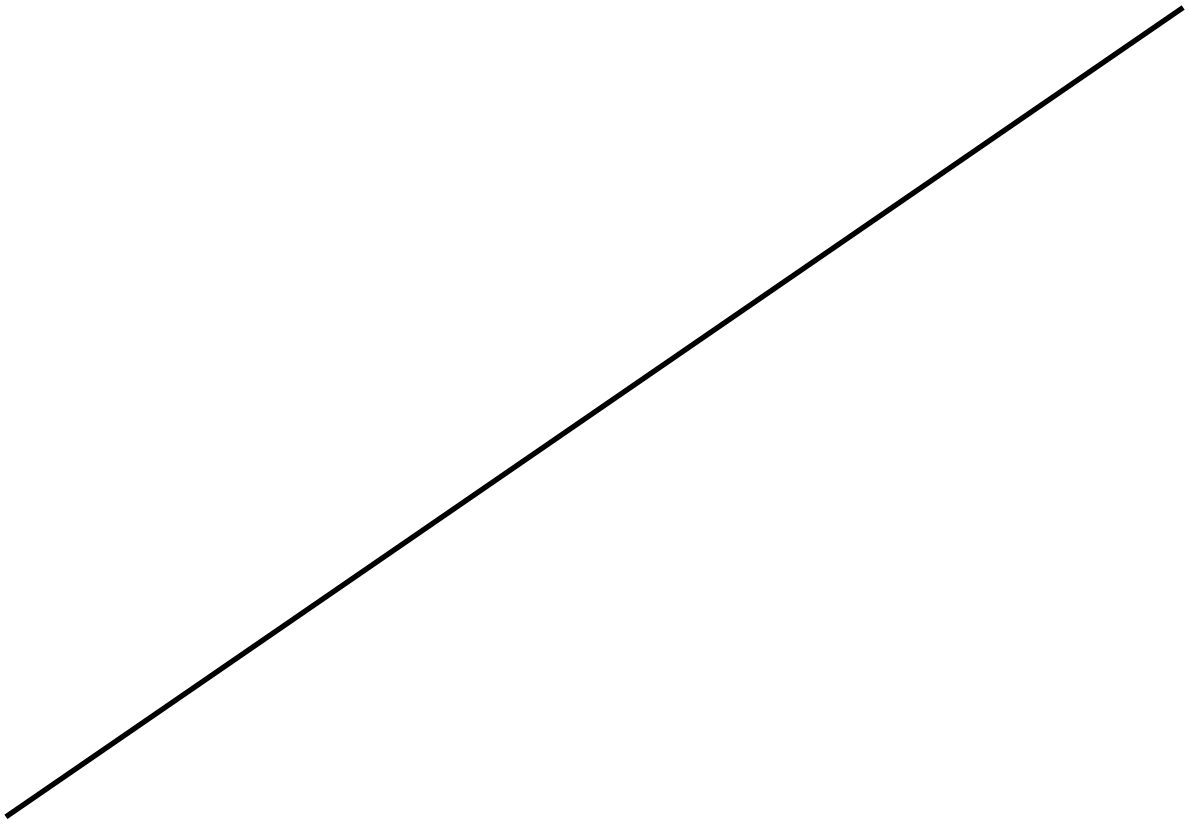


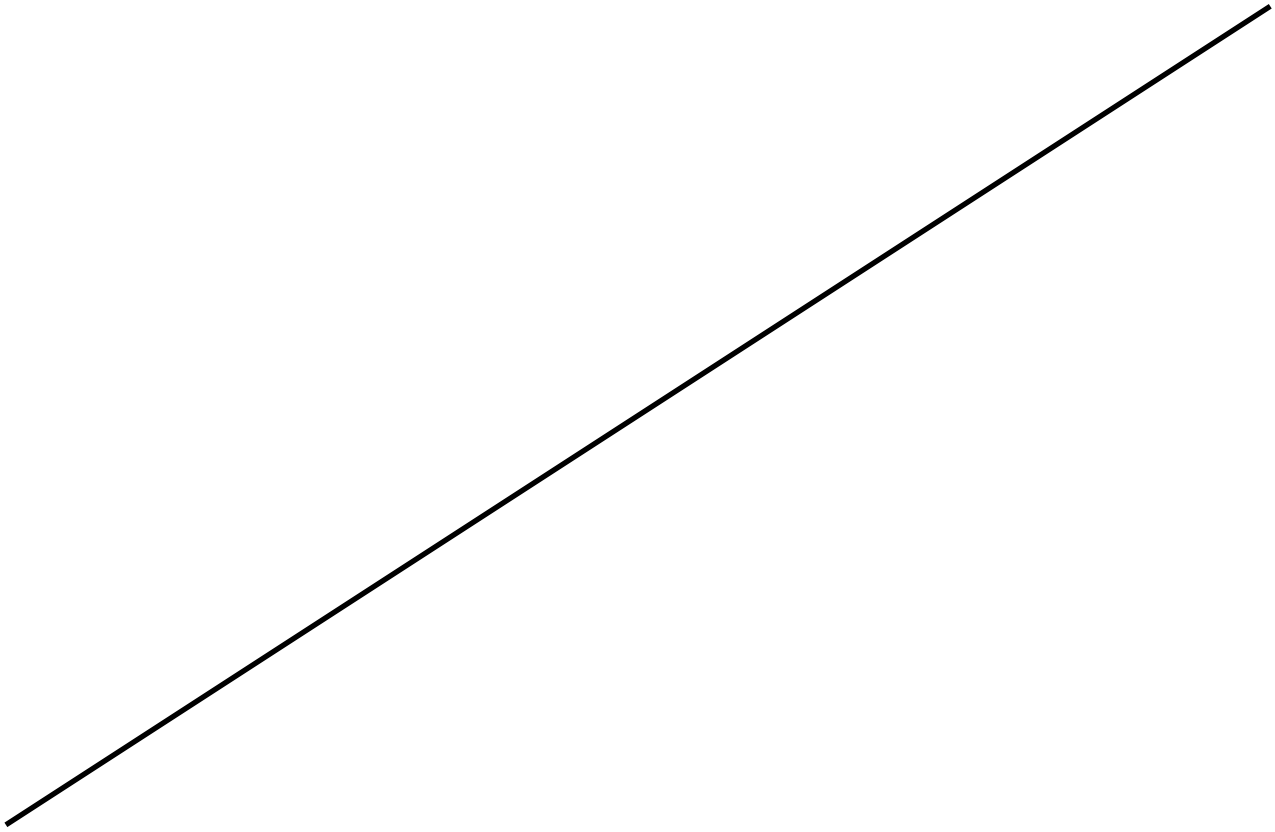


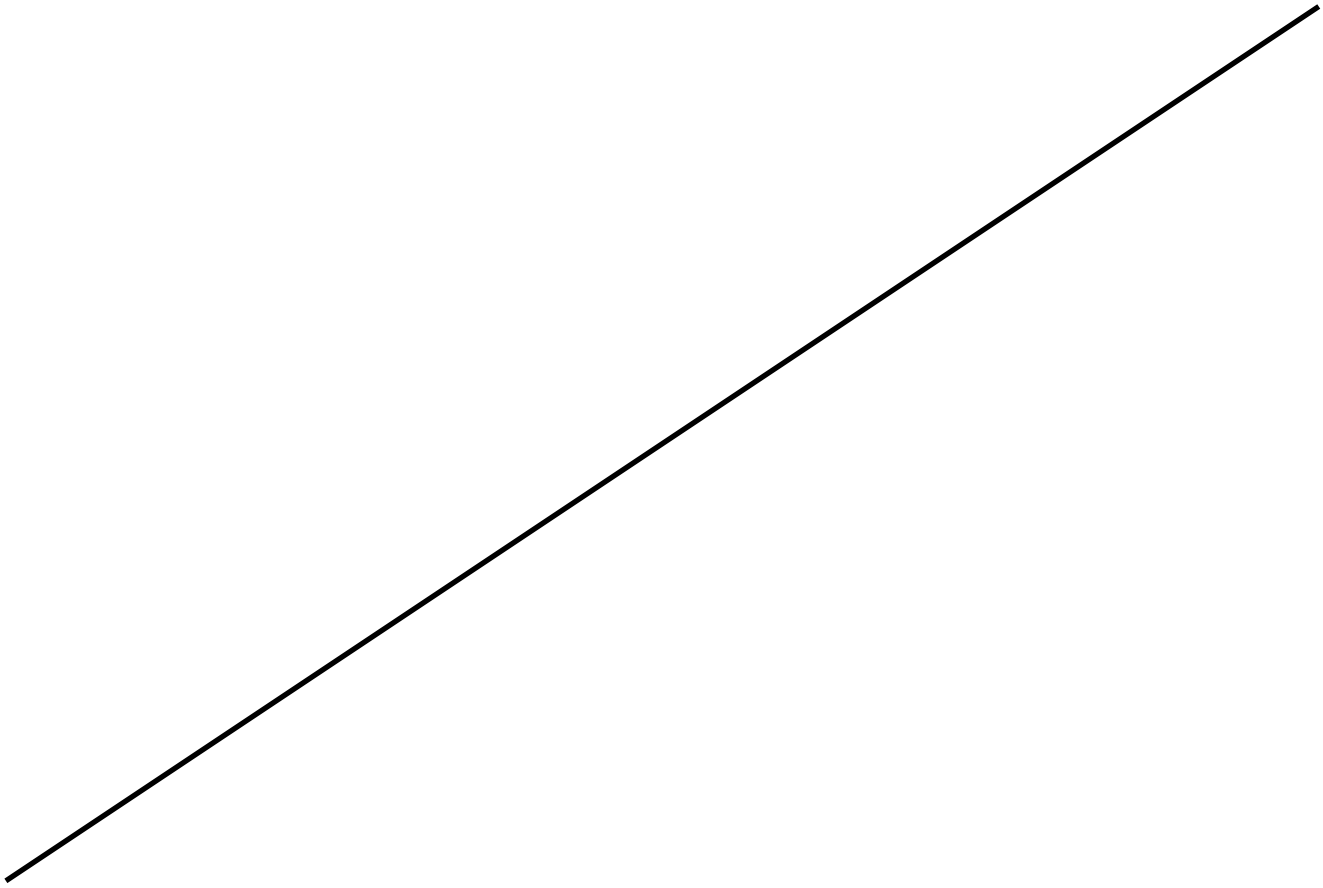


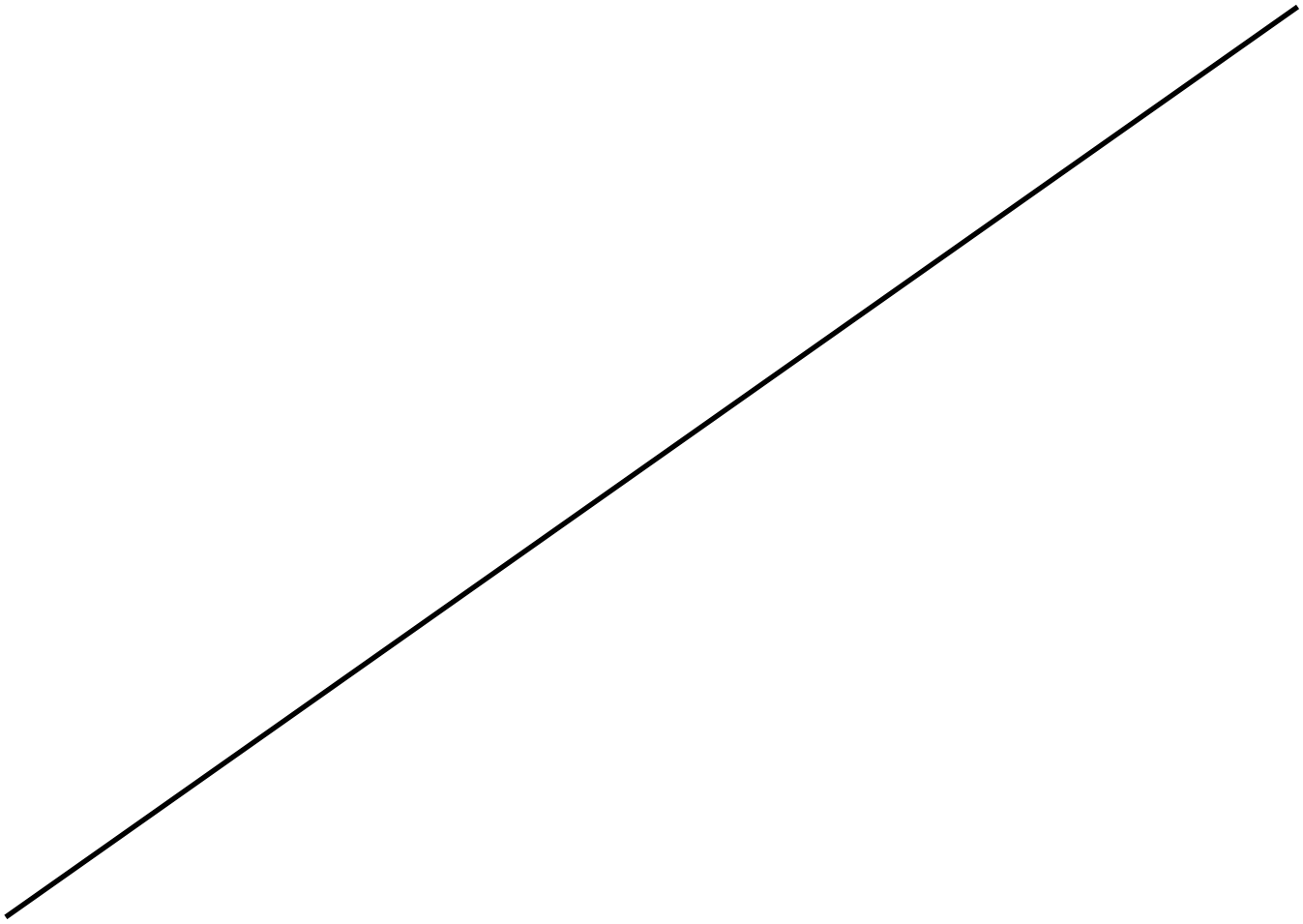


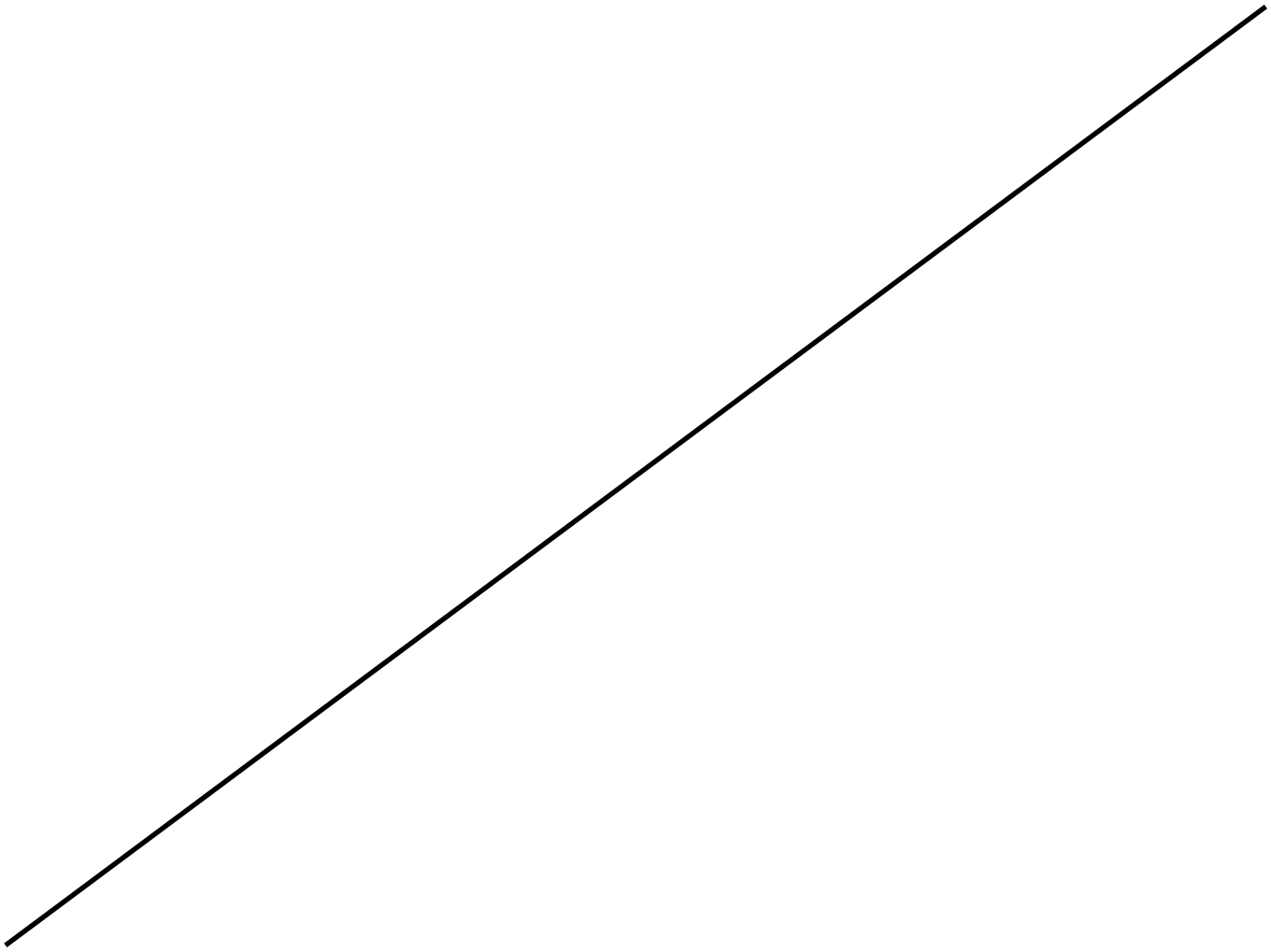


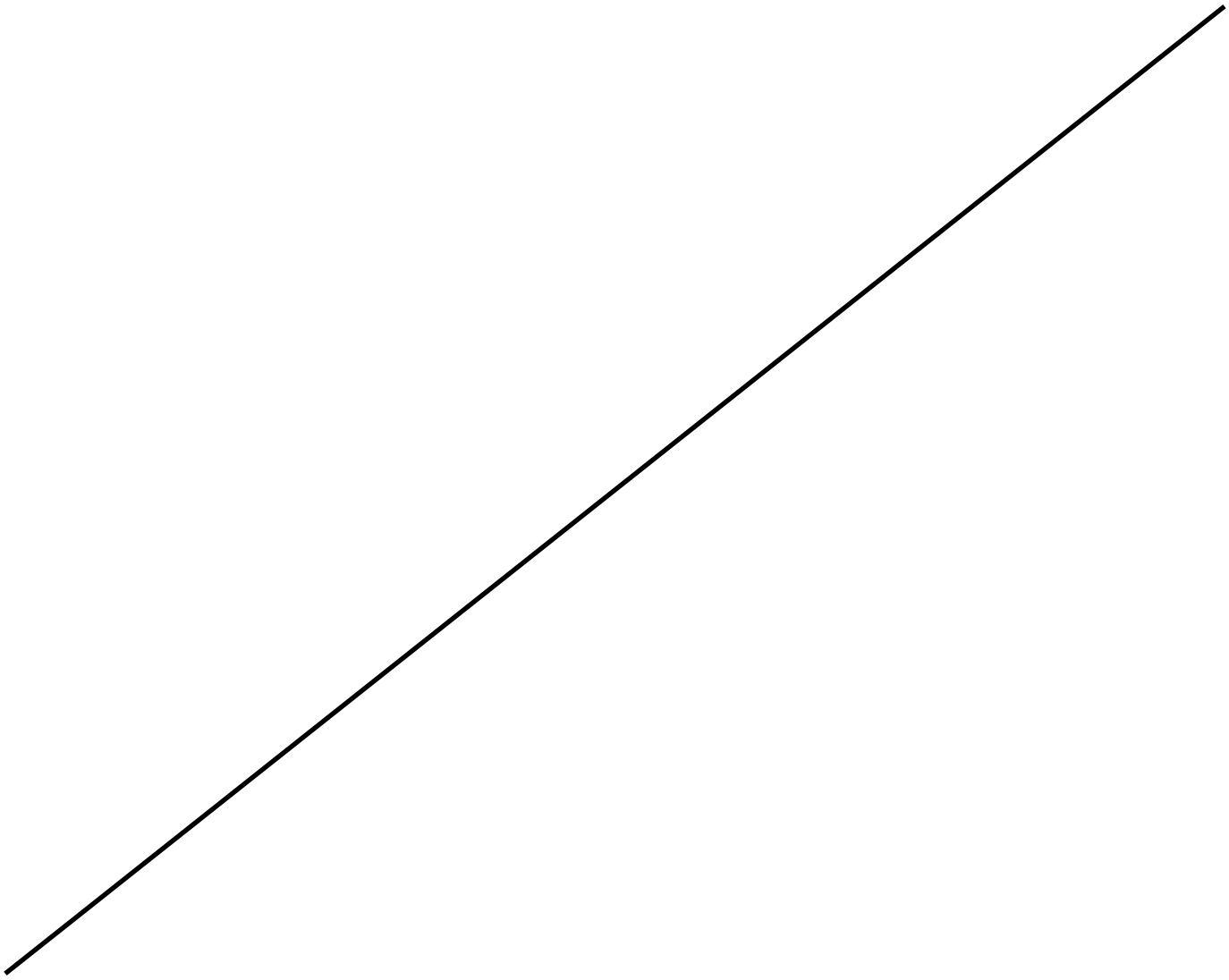


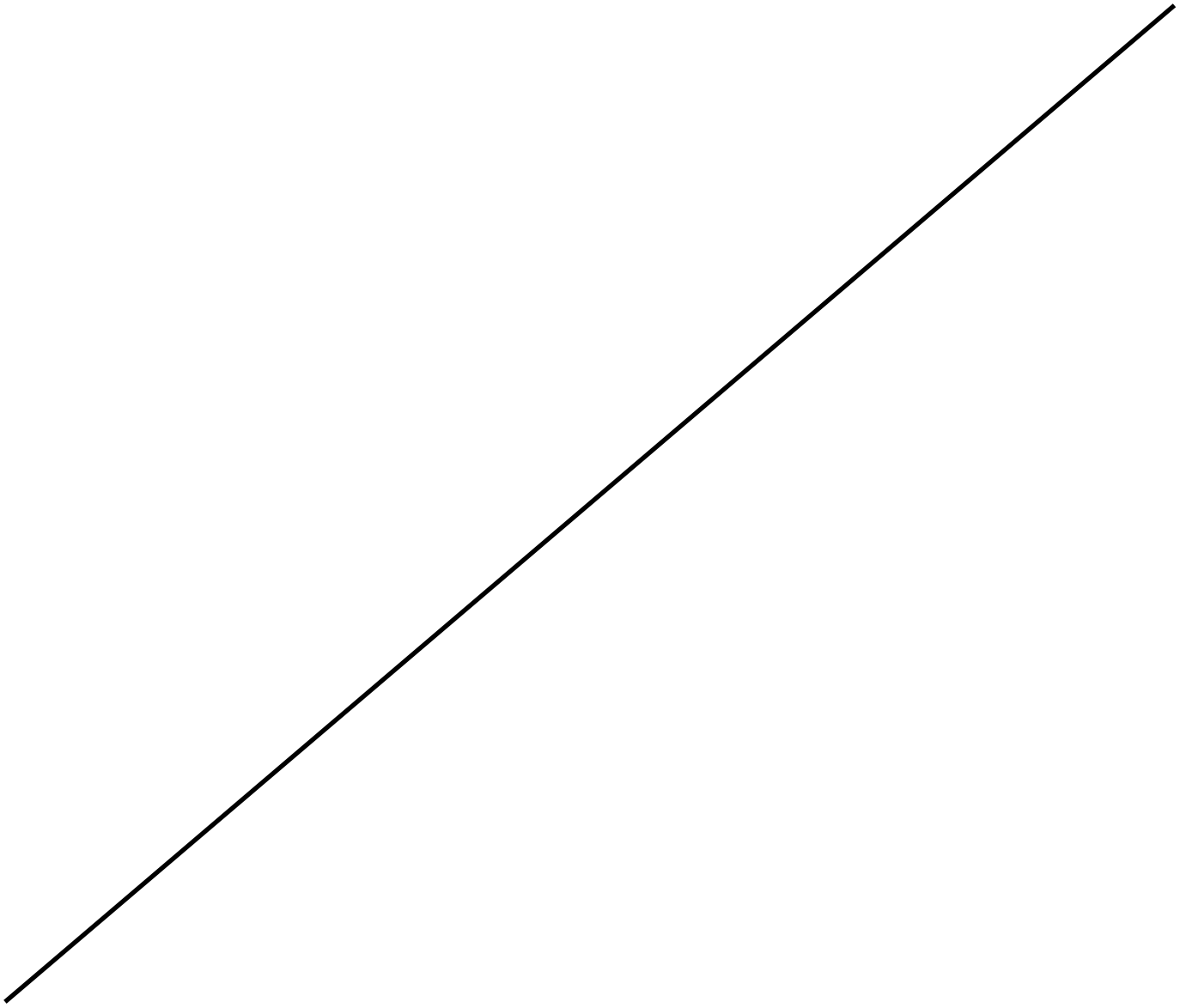


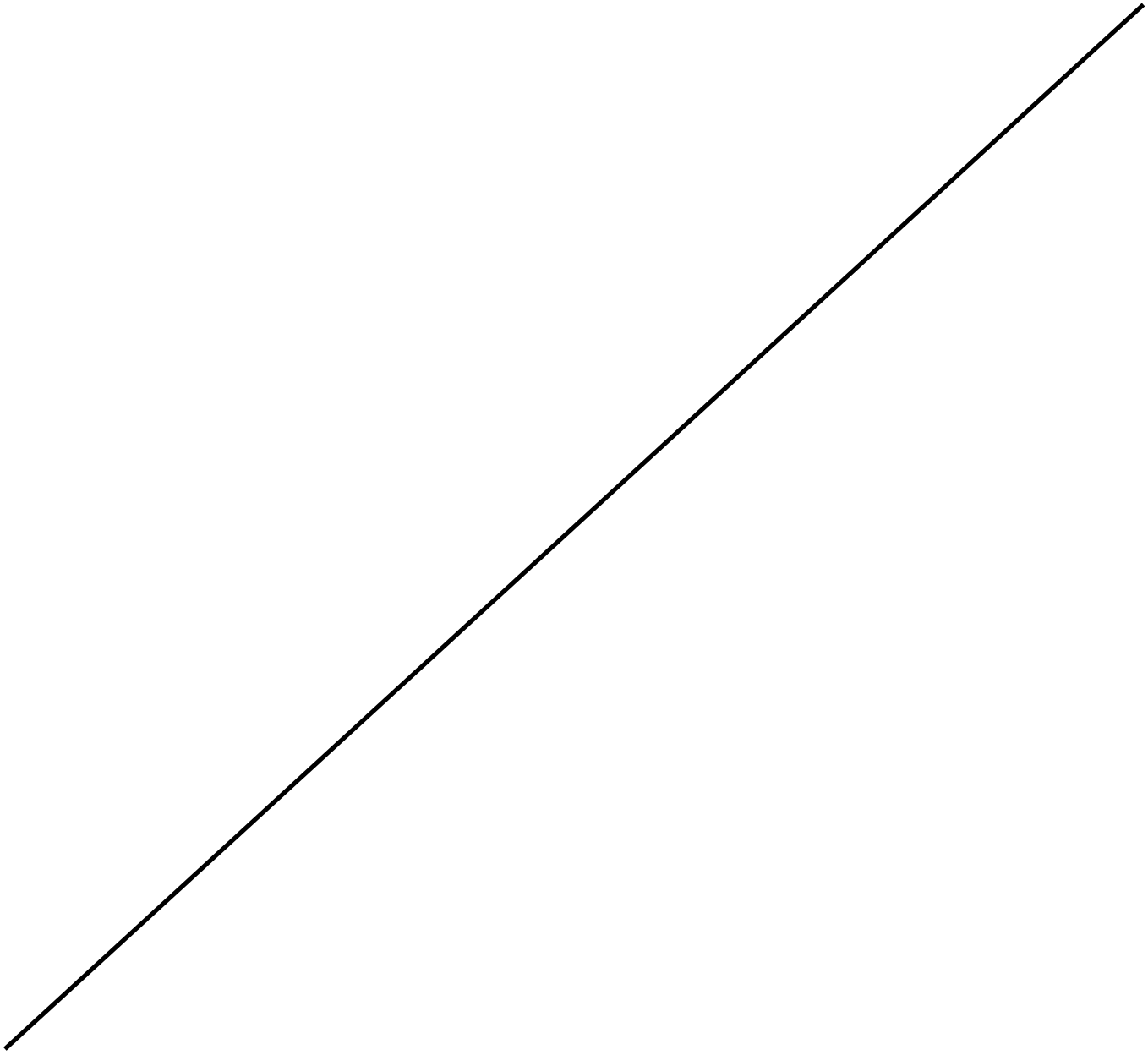


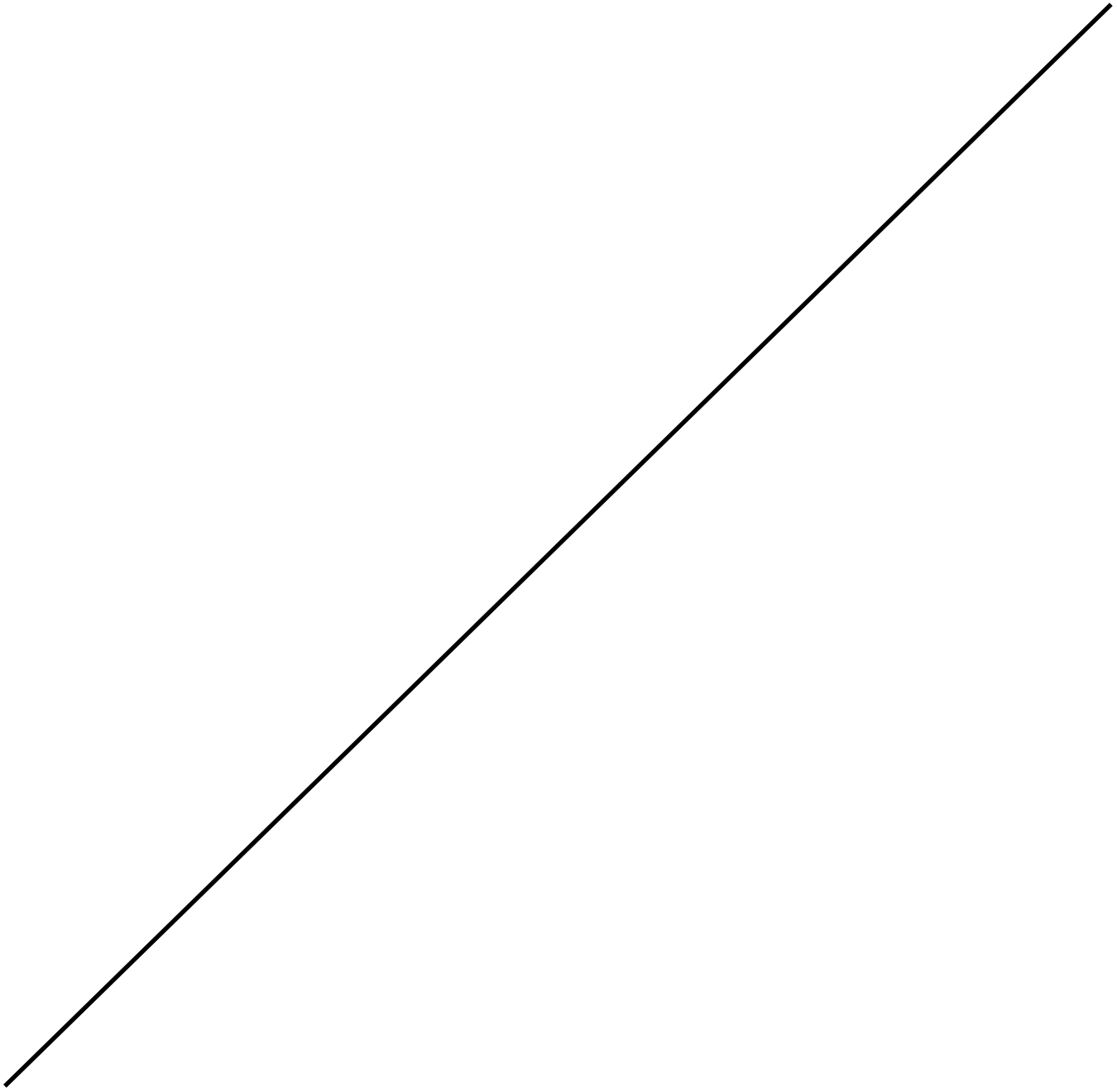


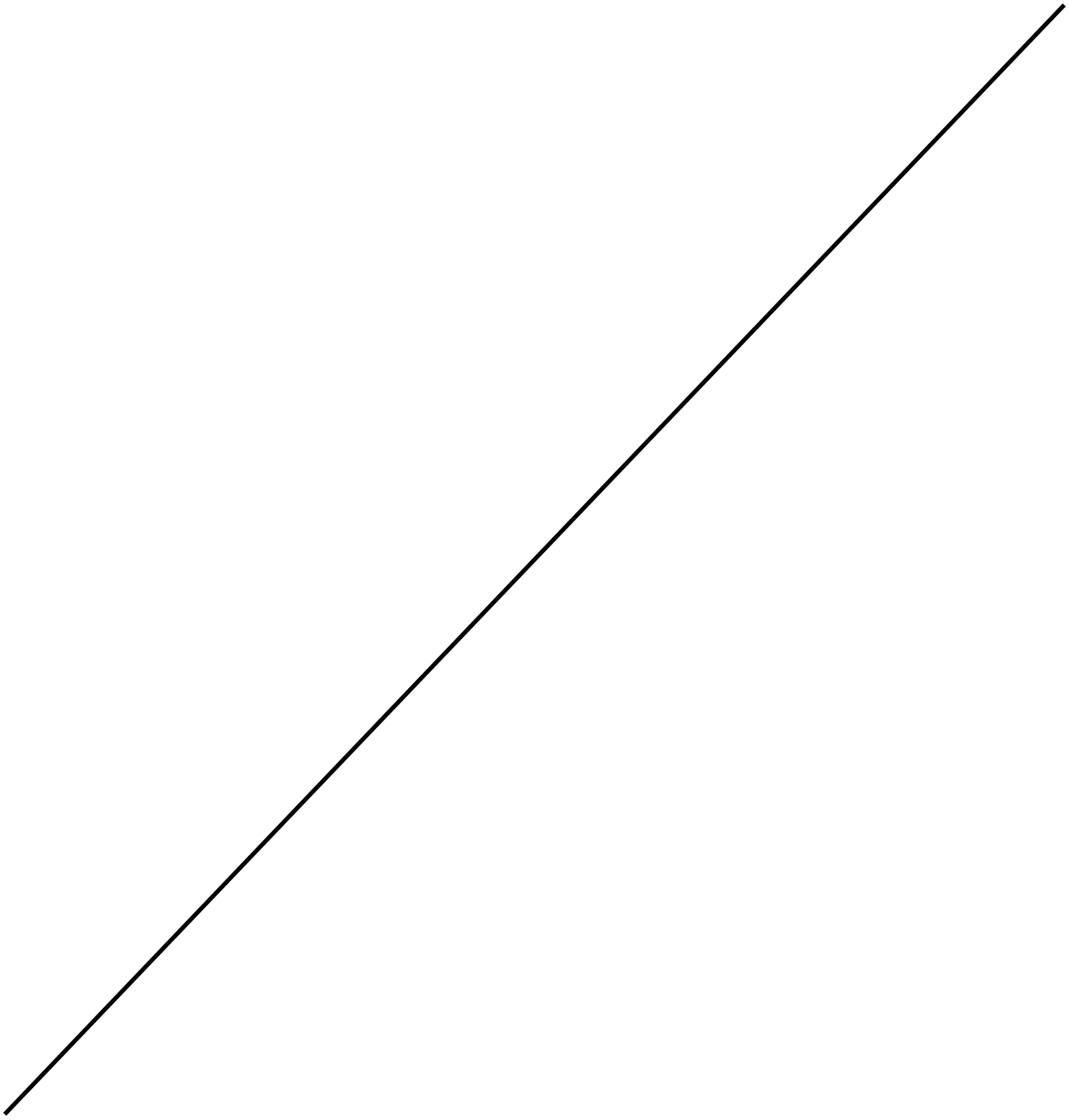


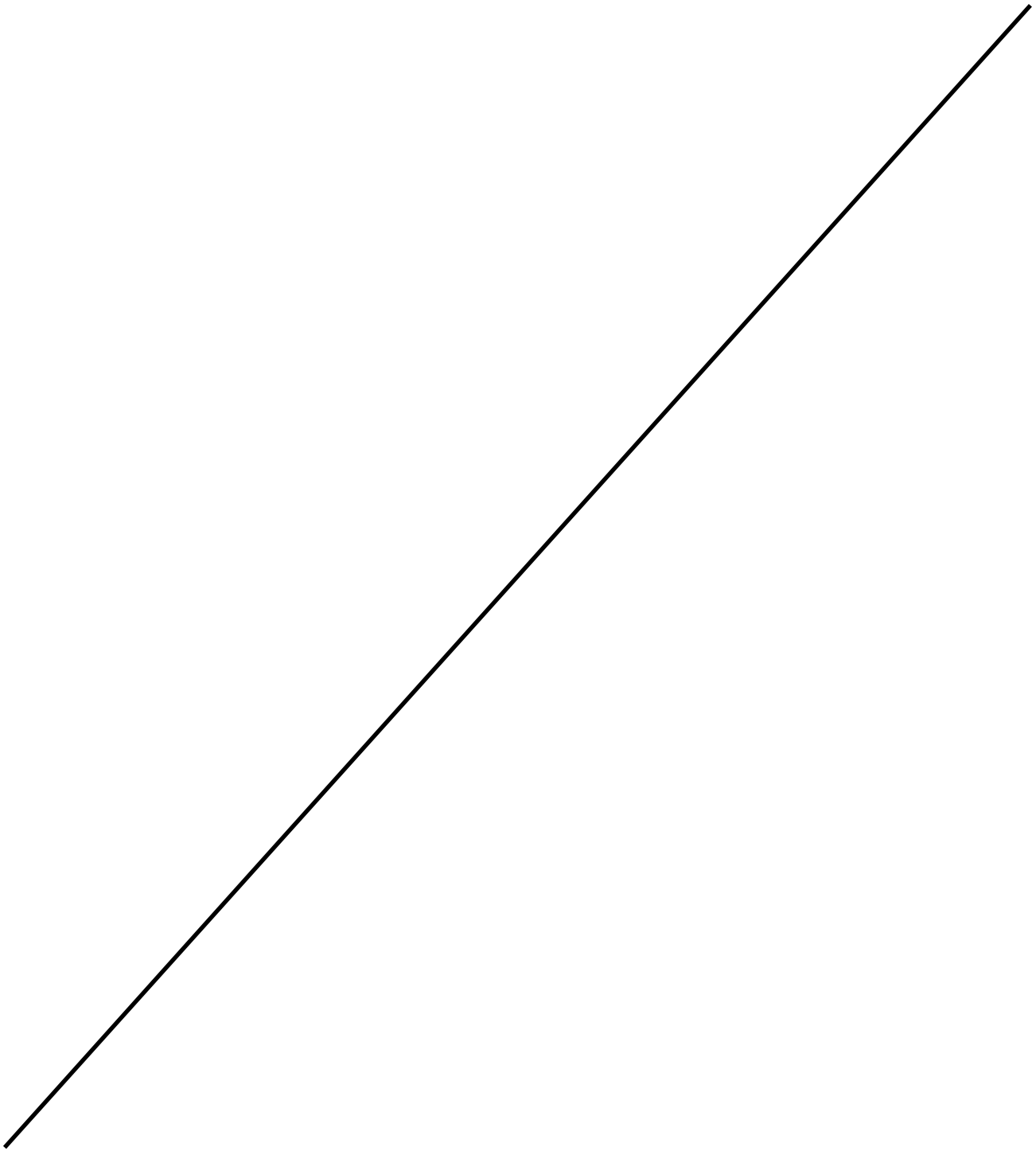


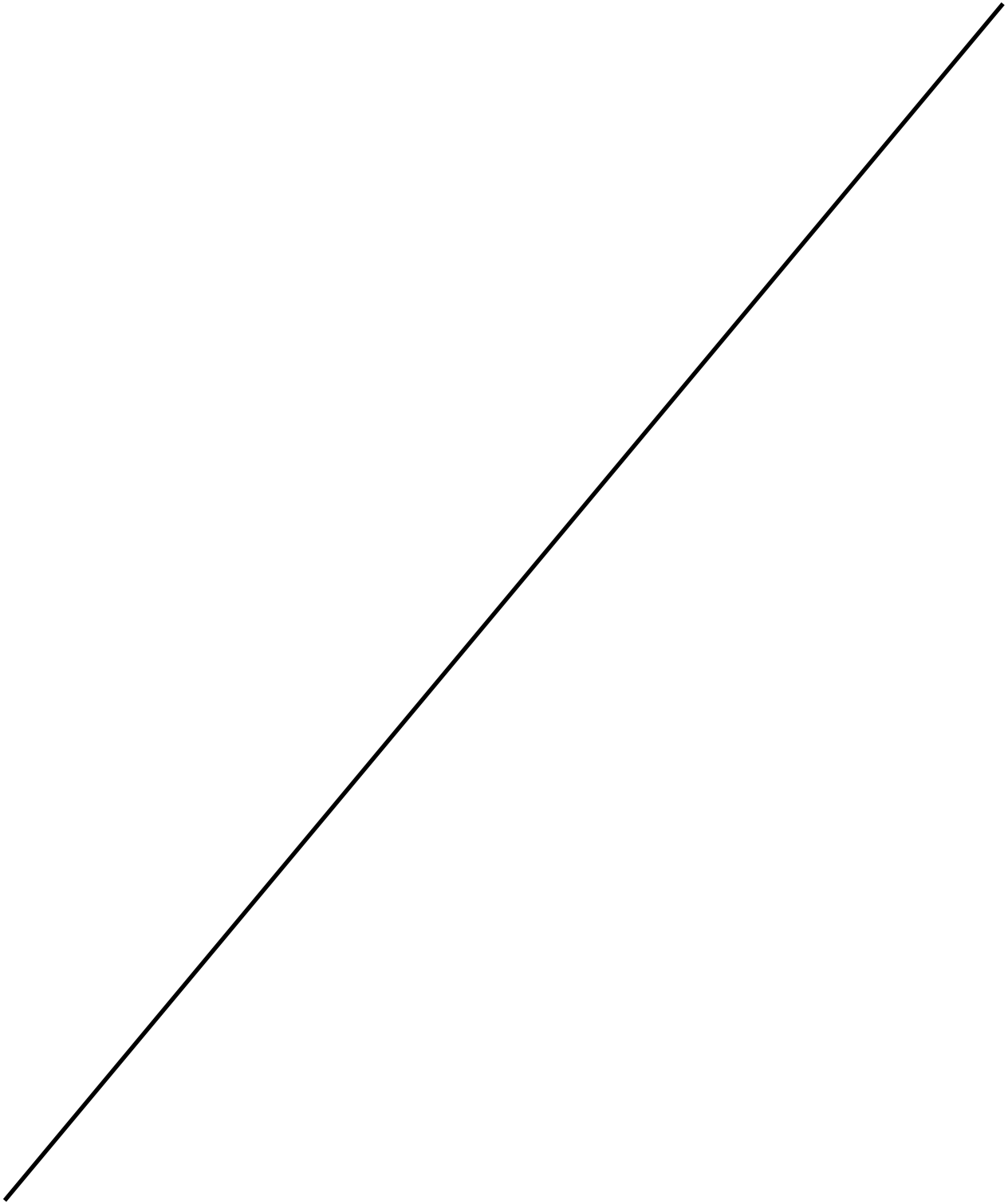


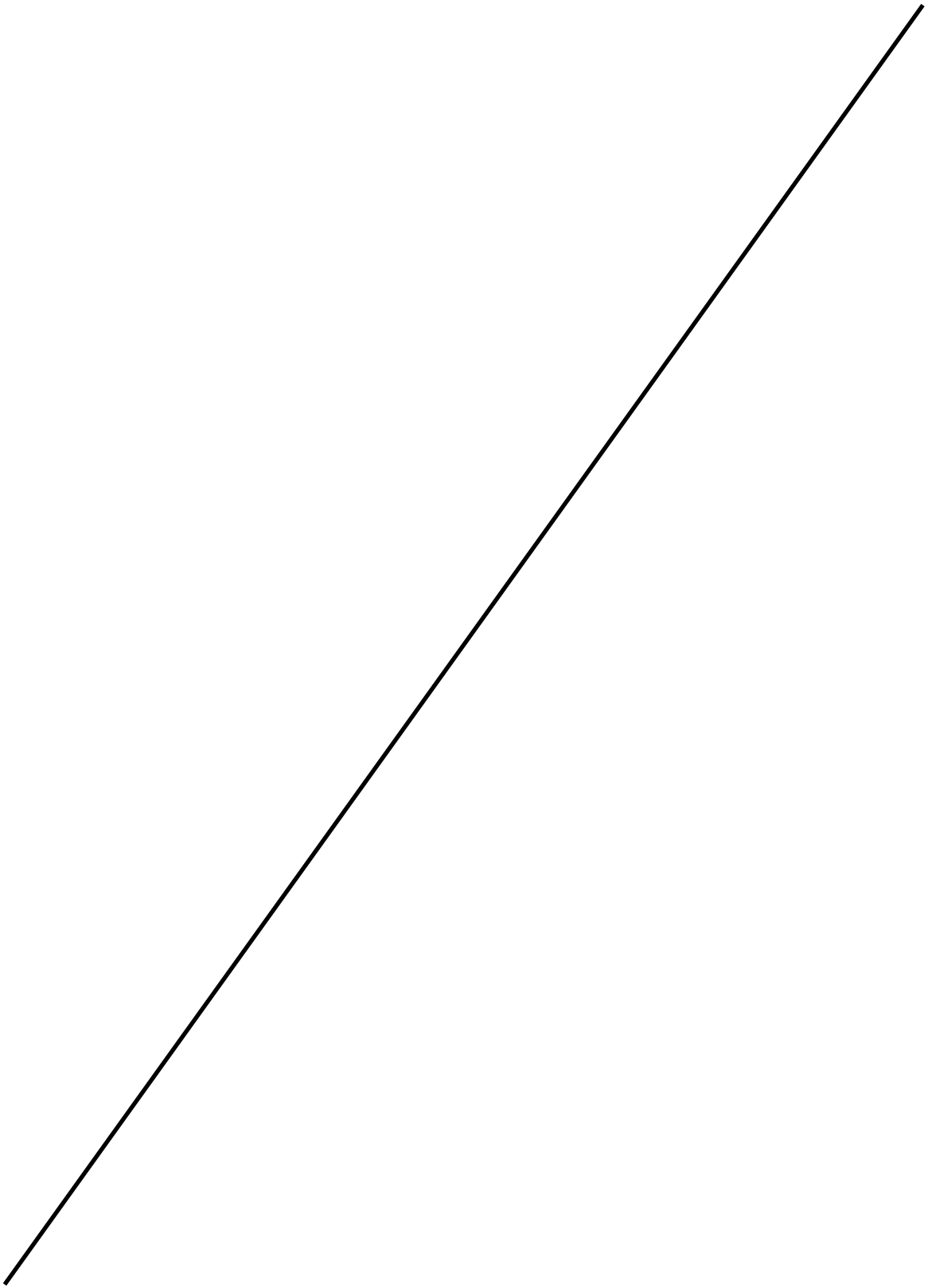


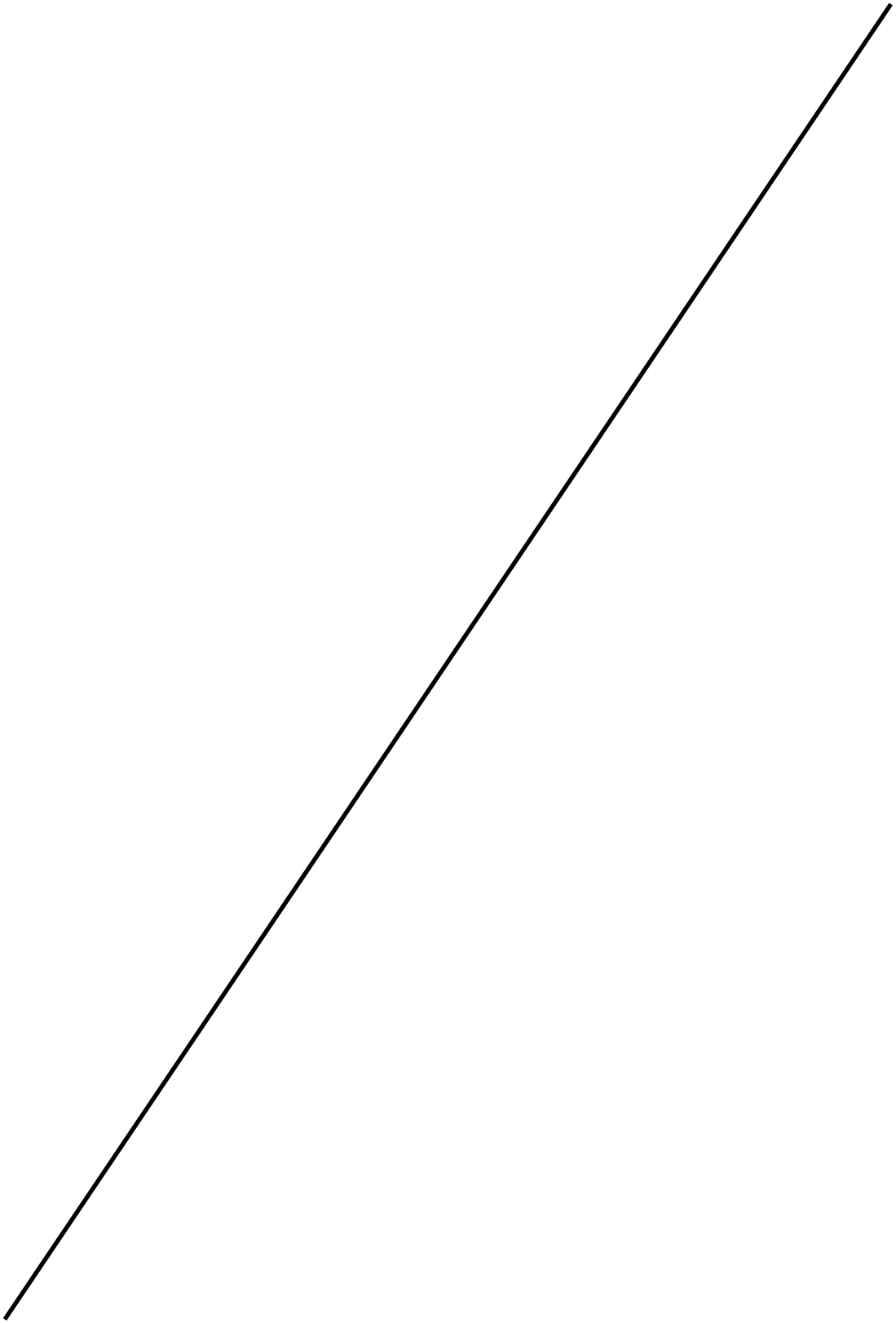


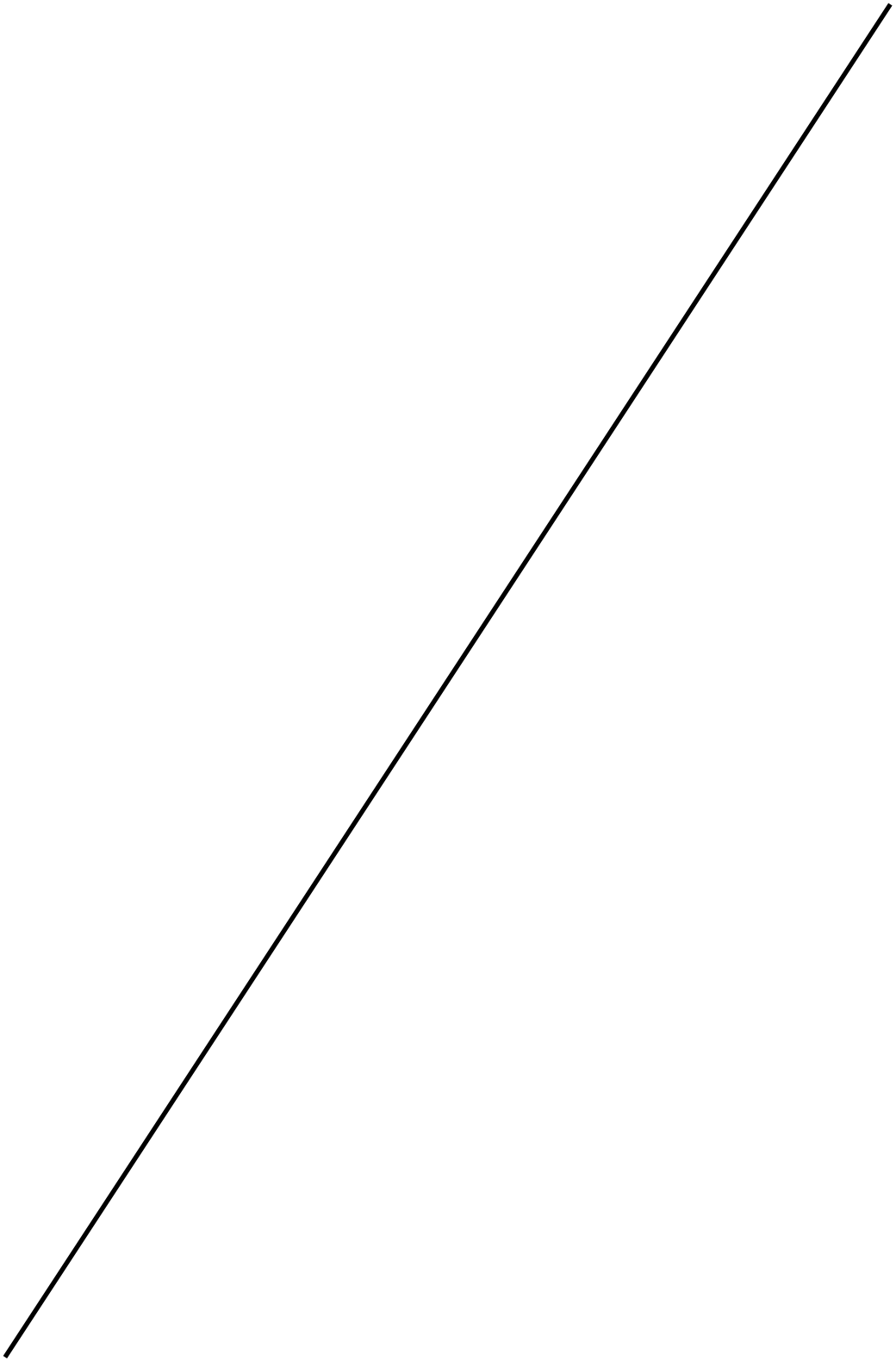


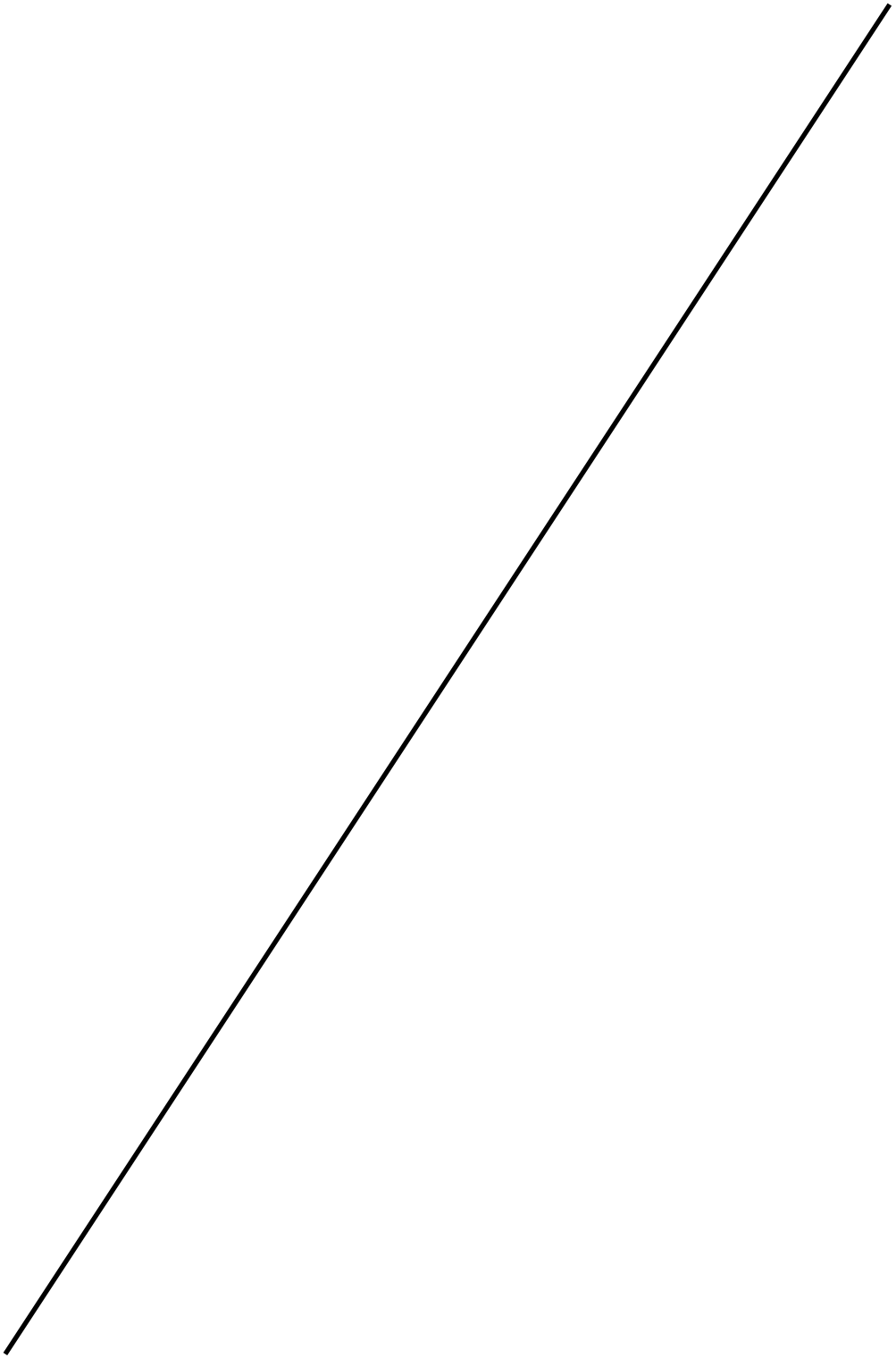


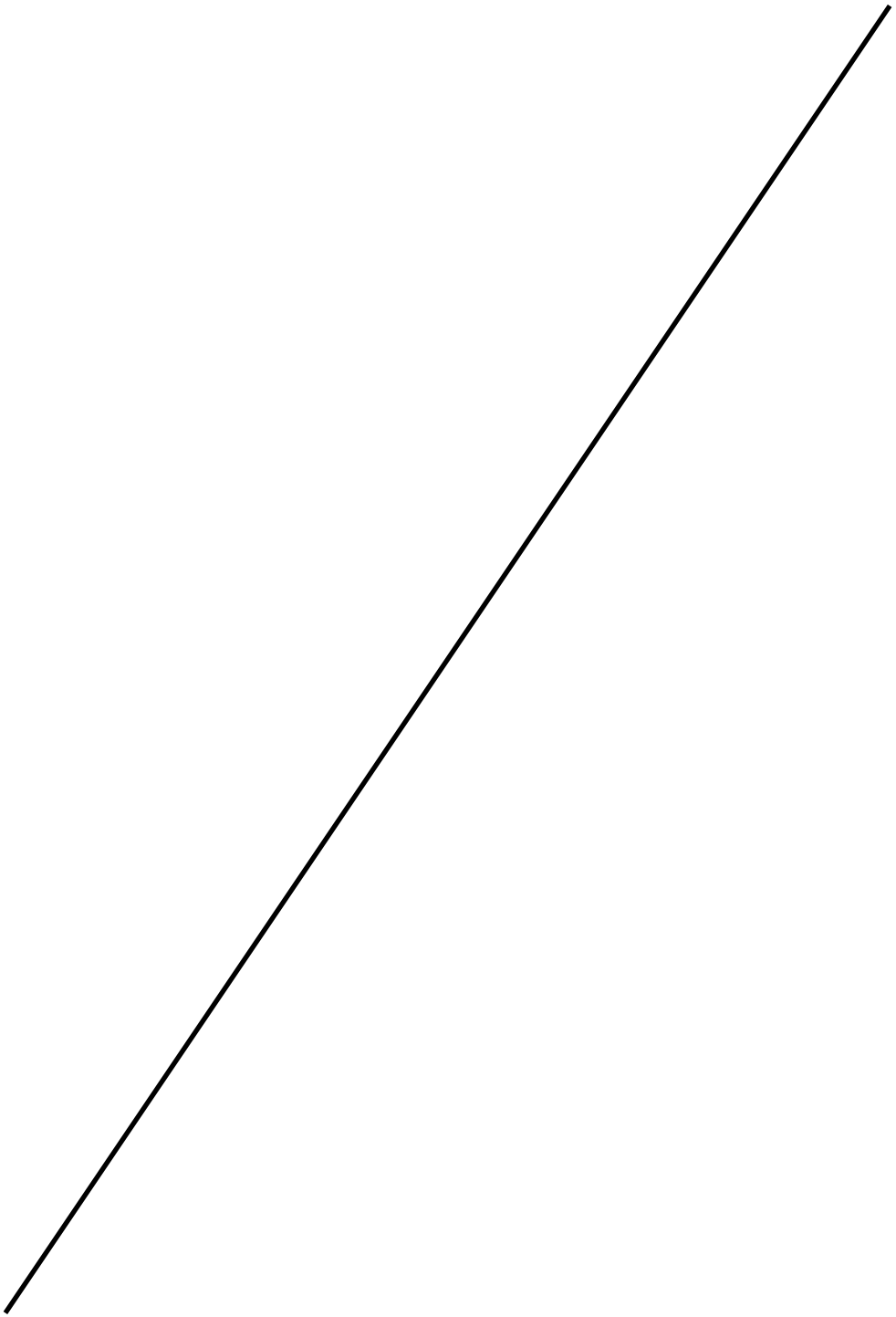


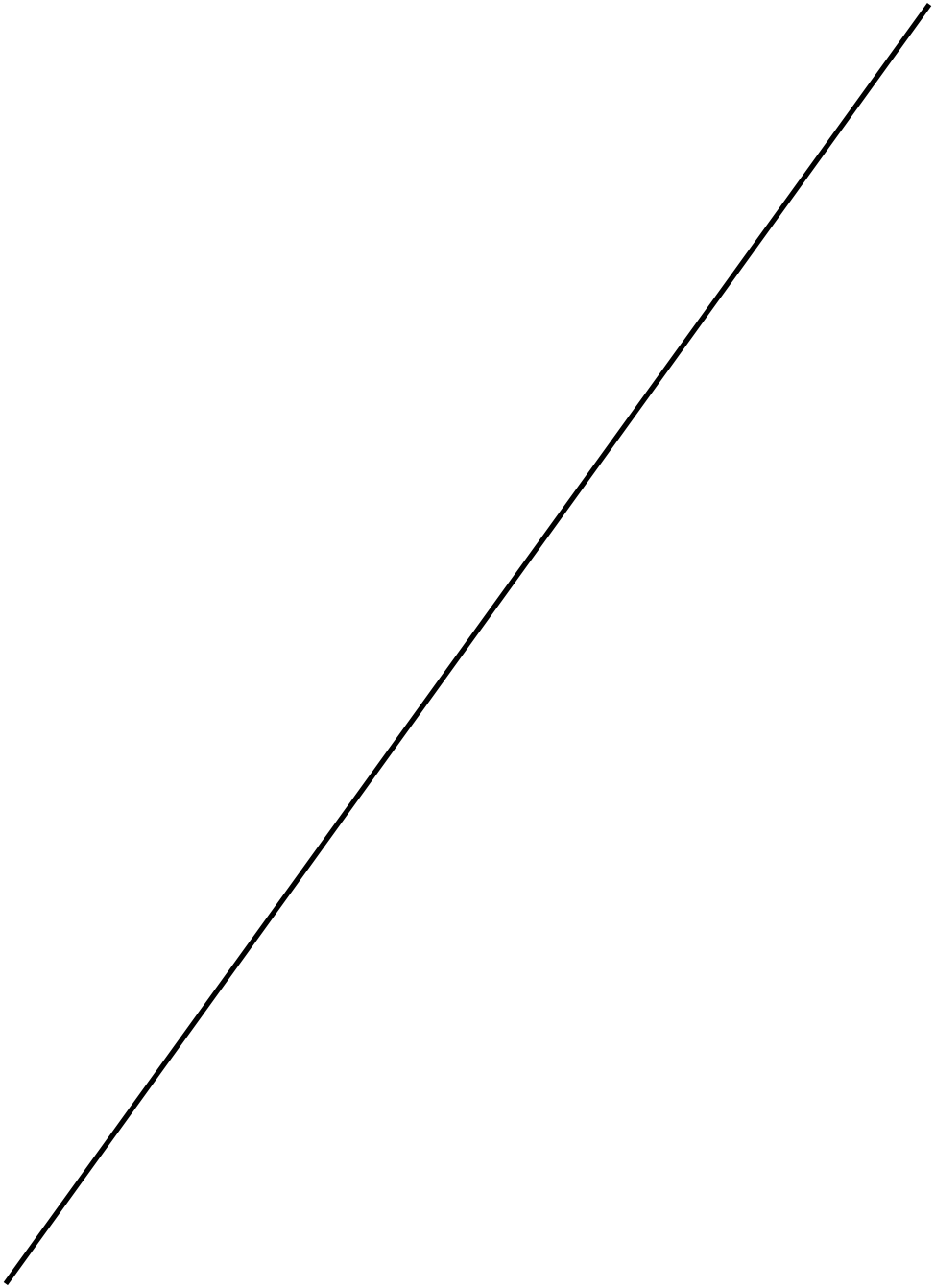


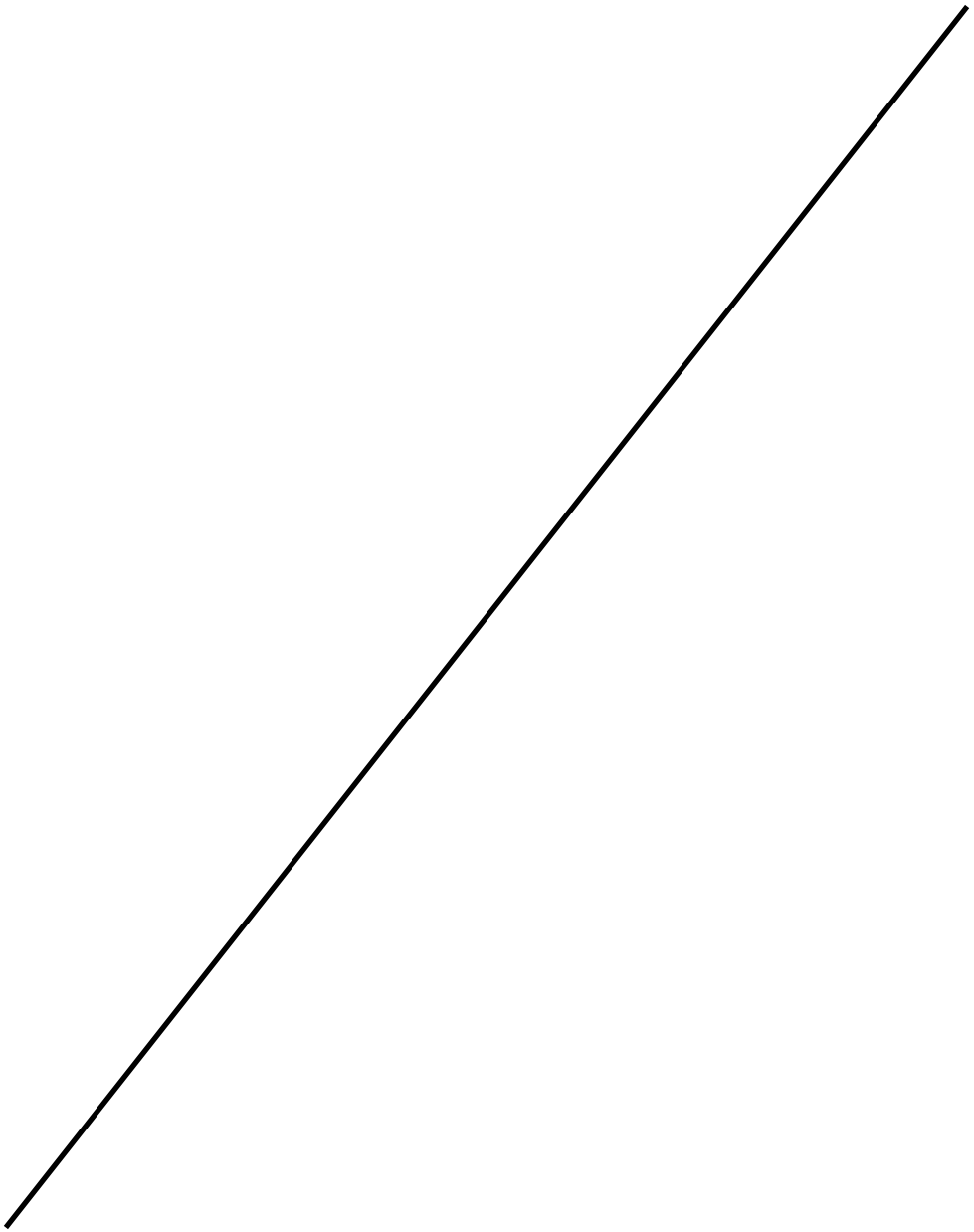


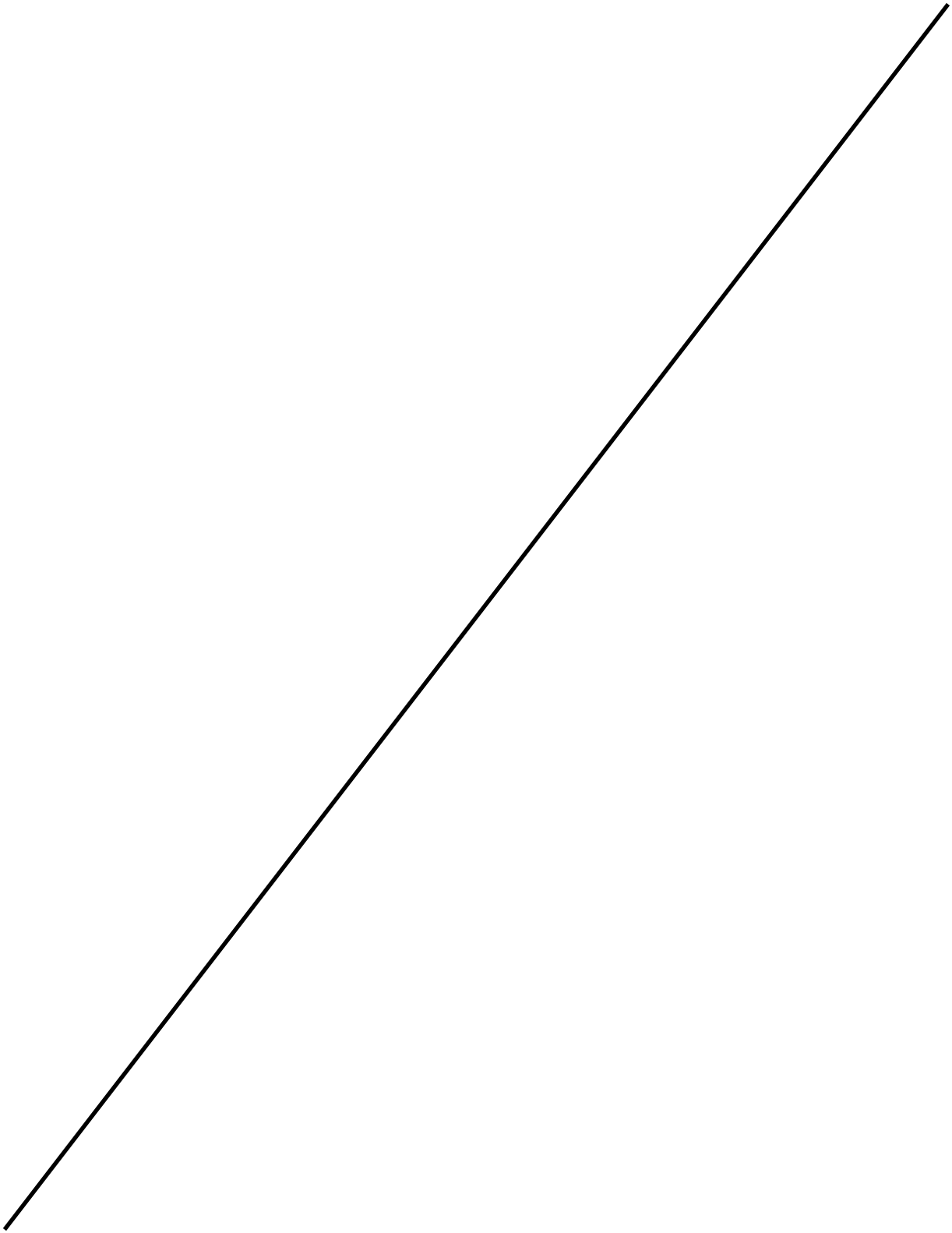


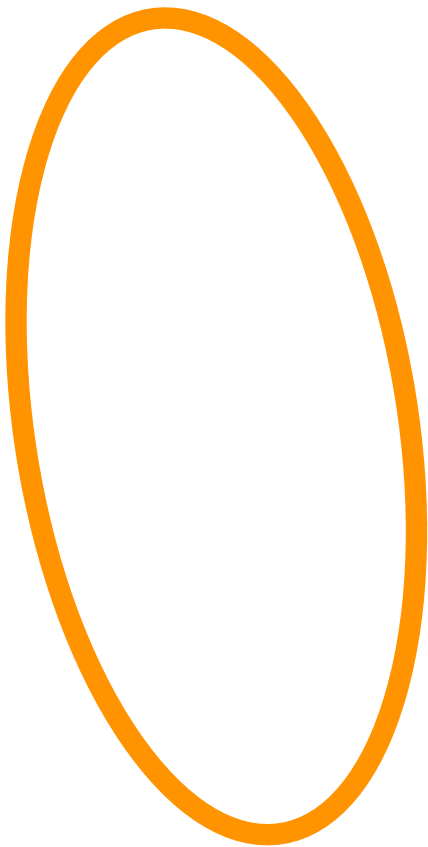












PTV

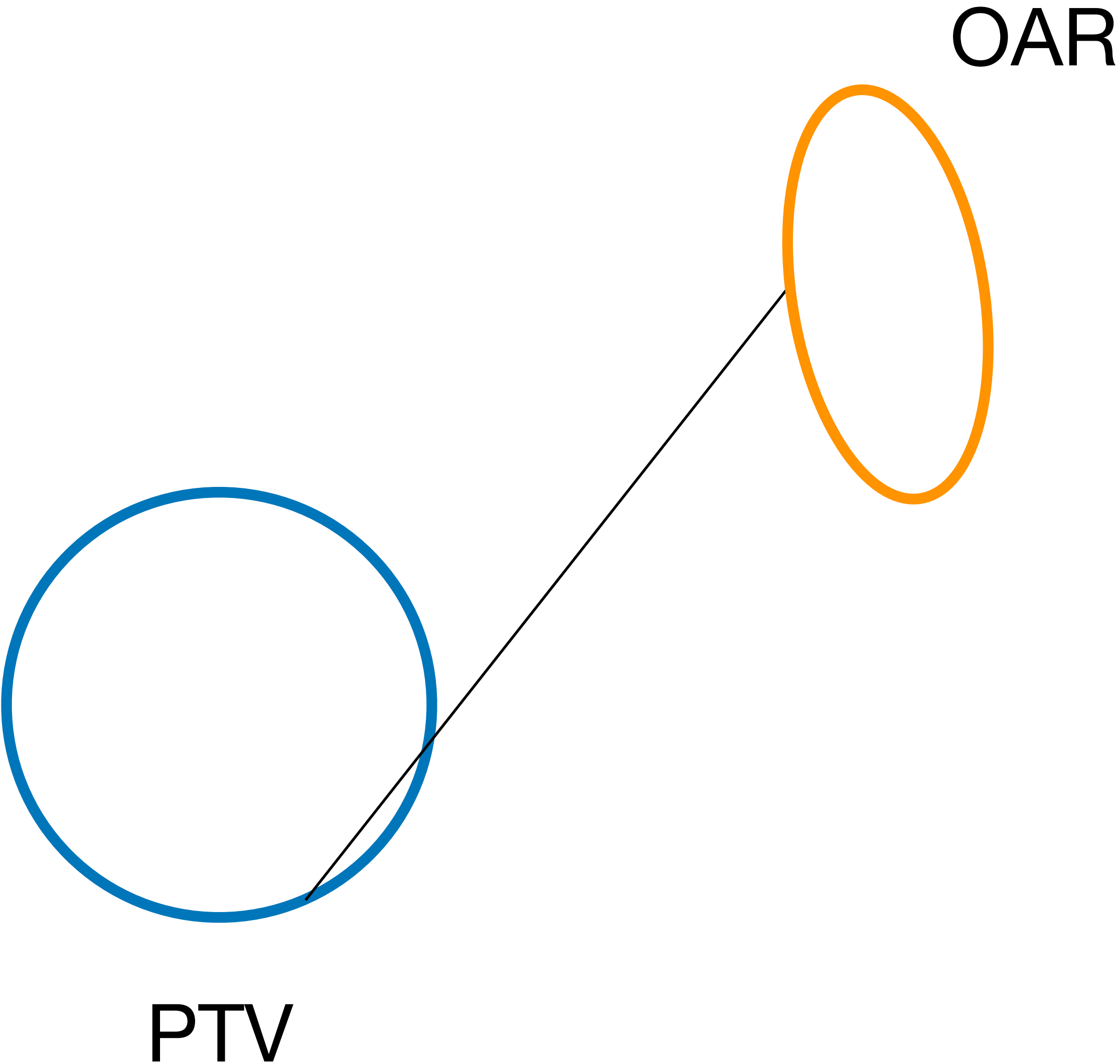
OR



DVH Analytics

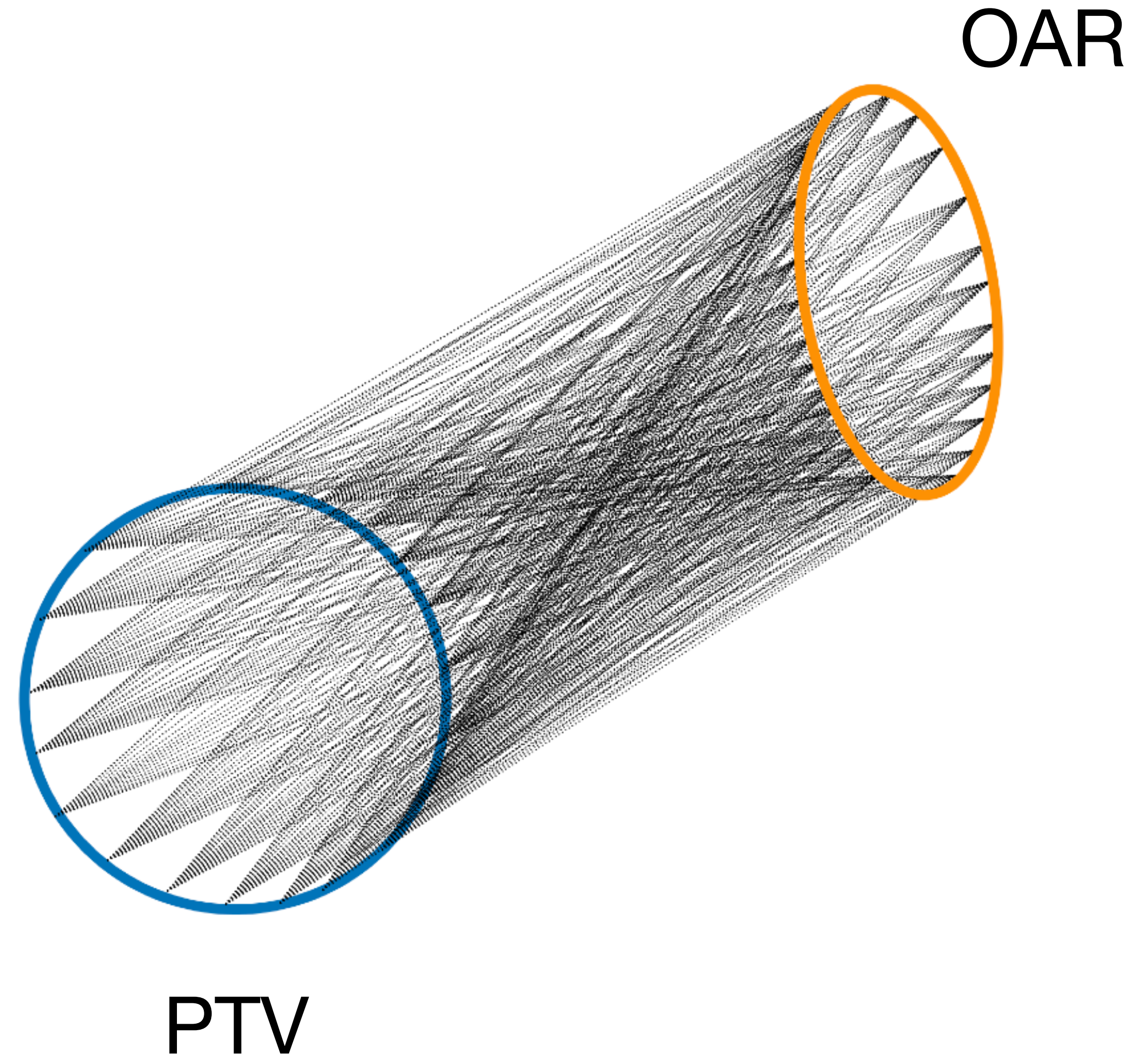
SQL Database Design

PTV Distance



PTV Distance

- Will continue this process for every point on PTV.
- Although this is a brute force method, calculation takes $< 1\text{sec}$ per ROI on average.*
- Large contours may cause memory issues. External, skin, body, etc. ignored by default.
- Standard 3D Euclidean distances.



* Tested on a 2016 Macbook Pro 2.6GHz i7