Data Visualization

**Lecture5**

**MathamaticsVisualization**

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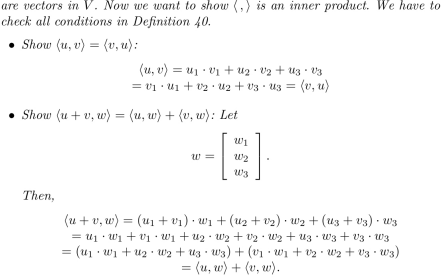
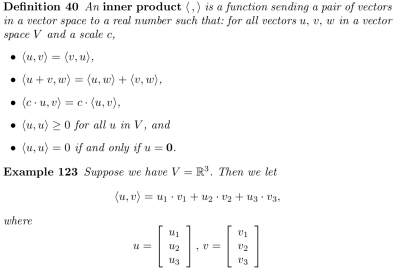
Content

Plot a mathmatics graph • Introduction to Linear Algebra 6: InnerProductSpace

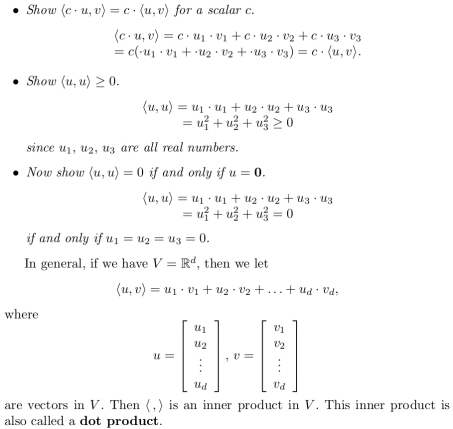
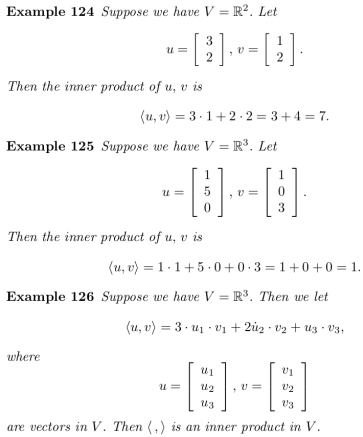
Inner Product Space

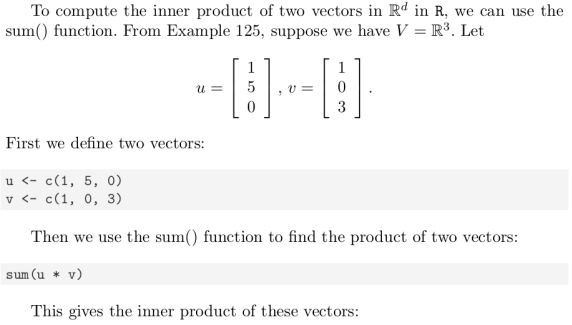
❖ An inner product is an operation on vectors in a vector space and it will definegeometricproperties of the vector space.

❖ A vector space paired with an inner product is called an inner product space. ❖ With an inner product we can define the length of a vector and also the distance betweentwovectors.

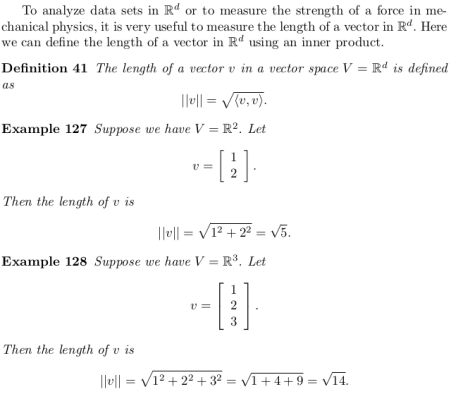


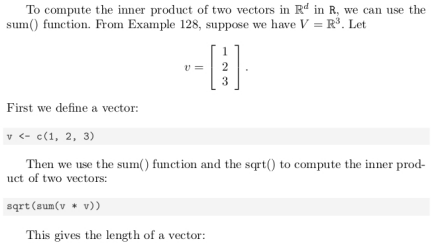
Inner Product Space

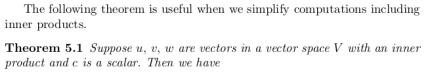


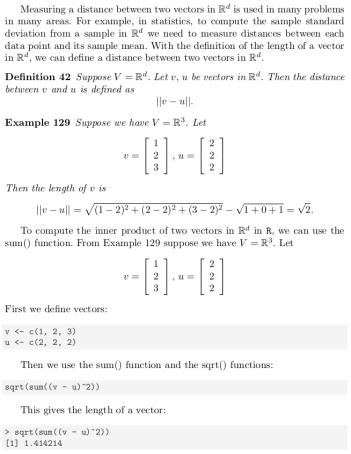
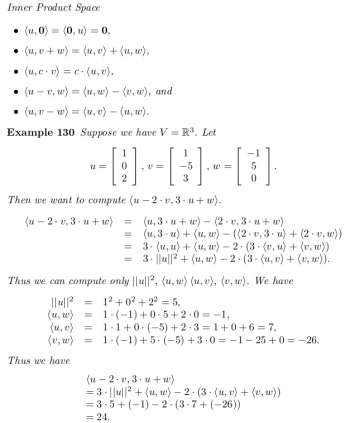
In R: compute Inner Product Space



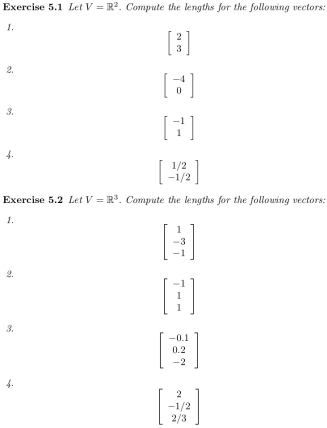
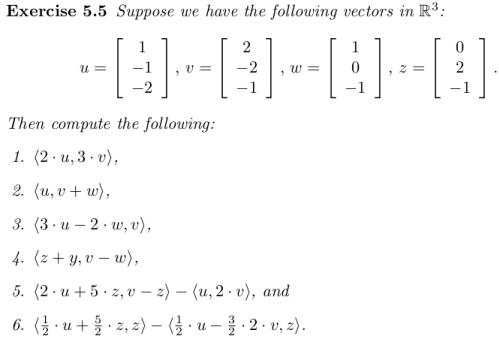
In R: compute Inner Product Space



In R: Compute Inner Product Space



Exercises



Homework

