

Vectors Day 2 Notes

EQ: How do I use the dot product to calculate the angle between two vectors?

How do I find the dot product between two vectors?

The Dot Product

$$u \cdot v = a_1 a_2 + b_1 b_2$$

Ex. Find the dot product of $u = 2i + j$ and $v = 5i - 6j$

When are two vectors orthogonal?

*Two vectors are orthogonal (_____) if _____.

Dot Product Theorem

Angle between two vectors

$$u \cdot v = \|u\| \|v\| \cos \theta$$

So to find an angle...

How do I find the angle between two vectors?

Ex. Find the angle between $u = 4i - 3j$ and $v = 2i + 5j$

Summary