

Dot products: wrap up

More problems

- Find a unit vector perpendicular to both $\mathbf{i} + \mathbf{j}$ and $\mathbf{i} + \mathbf{k}$.
- Calculate the angles in the triangle connecting the points $(0, 0, 0)$, $(0, 1, 3)$, $(2, 1, -1)$ to three significant digits.

Original question

How do we calculate the projection of a vector into a plane?

What is the projection in human terms? "Walk along the plane from the origin of the vector until you are just underneath its tip."

So: if you look straight "up" (perpendicular to the plane) from the endpoint of the projection, you see the endpoint of the original vector.

How do we express "first go here, then go there" using vectors?

What if you project onto the line perpendicular to the plane and subtract that projection from the original vector?

