

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

같은 점을 시점으로 하는 두 벡터에서 한 벡터의
종점을 시점으로 하고 다른 벡터에 수선의 발을
종점으로 하는 벡터

(The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.)

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

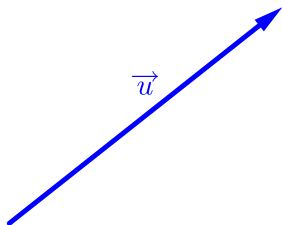
▶ Start

▶ End

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular form the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

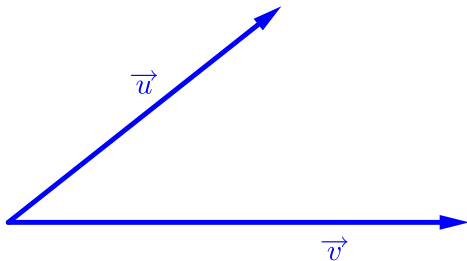
▶ End



The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

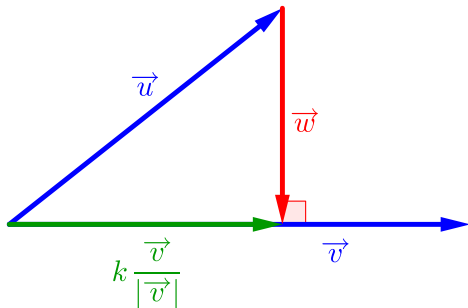
▶ End



The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

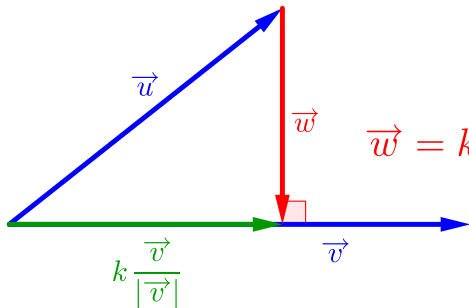
▶ End



The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

▶ End

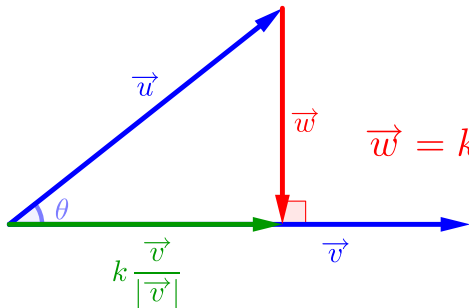


$$\vec{w} = k \frac{\vec{v}}{|\vec{v}|} - \vec{u}$$

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

▶ End

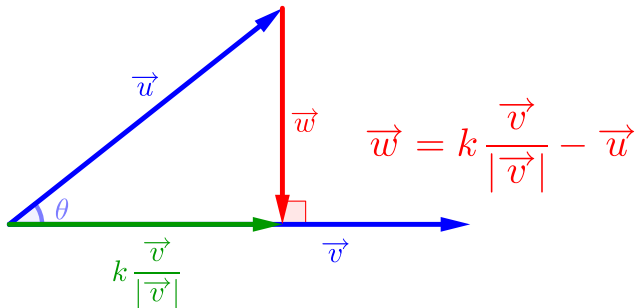


$$\vec{w} = k \frac{\vec{v}}{|\vec{v}|} - \vec{u}$$

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

▶ End

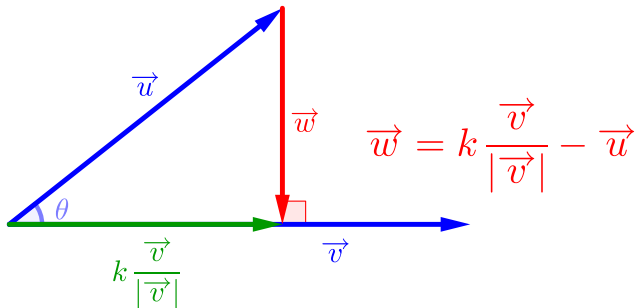


$$k = |\vec{u}| \cos \theta$$

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

▶ End

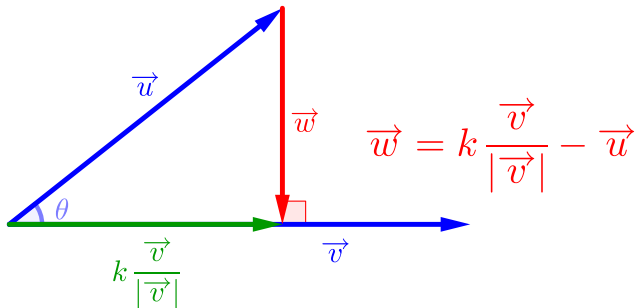


$$|\vec{v}| \times k = |\vec{u}| \cos \theta \times |\vec{v}|$$

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

▶ End

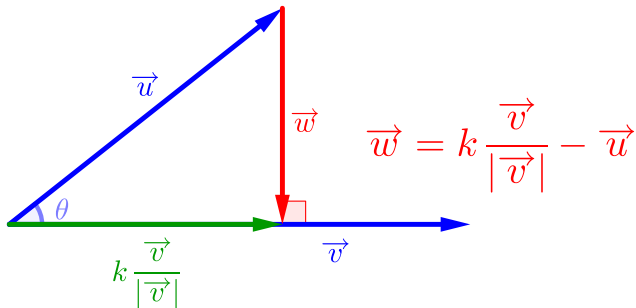


$$|\vec{v}| \times k = |\vec{u}| \times |\vec{v}| \cos \theta$$

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

▶ End

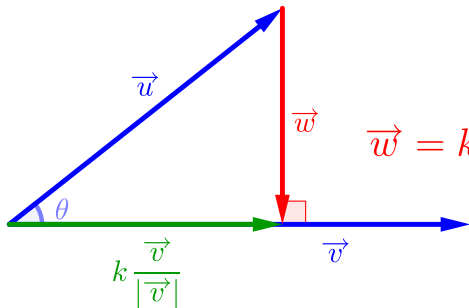


$$|\vec{v}| \times k = \vec{v} \cdot \vec{u}$$

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

▶ End



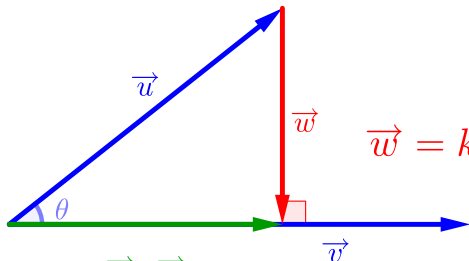
$$\vec{w} = k \frac{\vec{v}}{|\vec{v}|} - \vec{u}$$

$$k = \frac{\vec{v} \cdot \vec{u}}{|\vec{v}|}$$

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

▶ End



$$\vec{w} = k \frac{\vec{v}}{|\vec{v}|} - \vec{u}$$

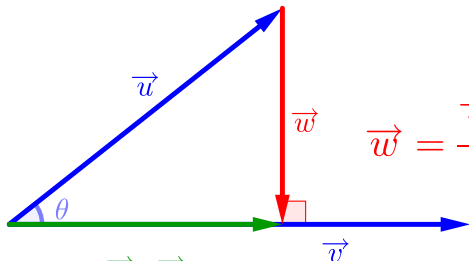
$$\frac{\vec{v} \cdot \vec{u}}{|\vec{v}|^2} \vec{v}$$

$$k = \frac{\vec{v} \cdot \vec{u}}{|\vec{v}|}$$

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular form the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

▶ End



$$\vec{w} = \frac{\vec{v} \cdot \vec{u}}{|\vec{v}|^2} \vec{v} - \vec{u}$$

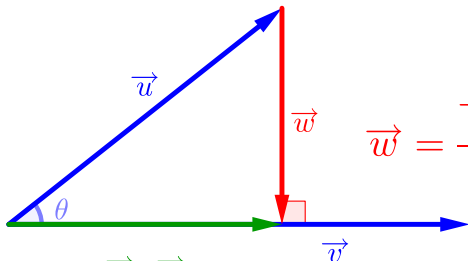
$$\frac{\vec{v} \cdot \vec{u}}{|\vec{v}|^2} \vec{v}$$

$$k = \frac{\vec{v} \cdot \vec{u}}{|\vec{v}|}$$

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

▶ Start

▶ End



$$\vec{w} = \frac{\vec{v} \cdot \vec{u}}{|\vec{v}|^2} \vec{v} - \vec{u}$$

or

$$\vec{w} = \frac{\vec{v} \cdot \vec{u}}{\vec{v} \cdot \vec{v}} \vec{v} - \vec{u}$$

$$k = \frac{\vec{v} \cdot \vec{u}}{|\vec{v}|}$$

The vector which the initial point is one vector's end point and the end point is the foot of the perpendicular from the end point of one vector to the other vector when there are two vectors having the same initial points.

Github:

<https://min7014.github.io/math20221028001.html>

Click or paste URL into the URL search bar,
and you can see a picture moving.