$$\cos(\theta) = \frac{\mathbf{v1} \cdot \mathbf{v2}}{|\mathbf{v1}||\mathbf{v2}|} \tag{1}$$

$$\sin(\theta)\mathbf{n} = \frac{\mathbf{v1} \times \mathbf{v2}}{|\mathbf{v1}||\mathbf{v2}|} \tag{2}$$

$$\text{atan2}(\sin(\theta), \cos(\theta)) = \theta \quad \text{for} \quad \theta \in (-\pi, \pi] \tag{3}$$