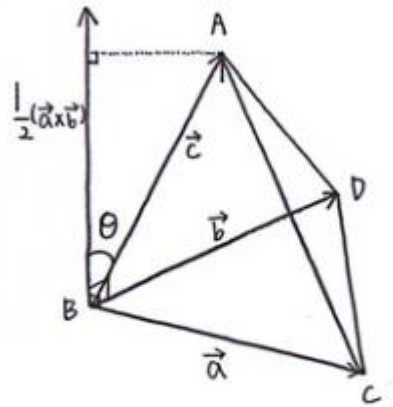

$\triangle BCD$의 넓이 $= \left|\frac{1}{2}(\vec{a}\times\vec{b})\right|$

사면체의 높이 $= |\vec{c}|\cos\theta$

$\therefore$ 사면체 부피 $= \frac{1}{3} \times$ (밑넓이) $\times$ (높이)

$= \frac{1}{3} \times \left|\frac{1}{2}(\vec{a}\times\vec{b})\right| \times |\vec{c}|\cos\theta$

그런데, $\frac{1}{2}(\vec{a}\times\vec{b})\cdot\vec{c}$

$= \left|\frac{1}{2}(\vec{a}\times\vec{b})\right| \cdot |\vec{c}| \cdot \cos\theta$ 이므로

$\therefore$ 사면체 부피 $= \frac{1}{3} \times \frac{1}{2}(\vec{a}\times\vec{b})\cdot\vec{c}$