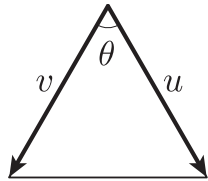
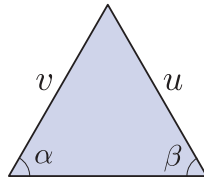
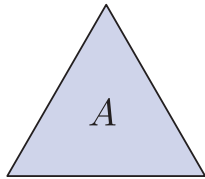


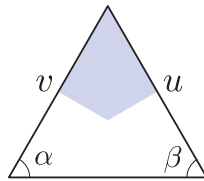
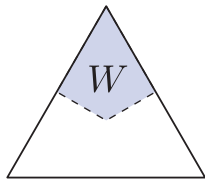
# Triangle Areas Cheat Sheet



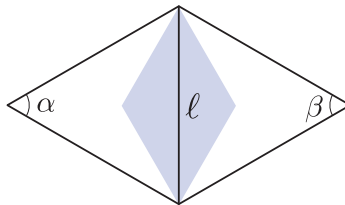
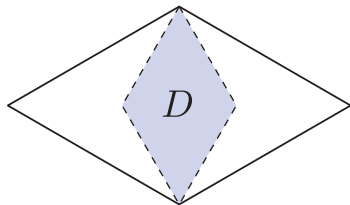
$$\cot \theta = \frac{u \cdot v}{\|u \times v\|}$$



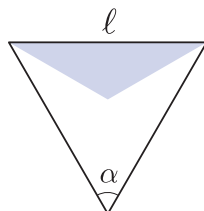
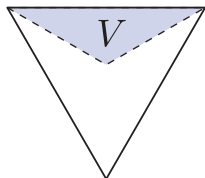
$$A = \frac{1}{2} uv \sin(\alpha + \beta)$$



$$W = \frac{1}{8} (u^2 \cot \alpha + v^2 \cot \beta)$$



$$D = \frac{1}{4} \ell^2 (\cot \alpha + \cot \beta)$$



$$V = \frac{1}{4} \ell^2 \cot \alpha$$