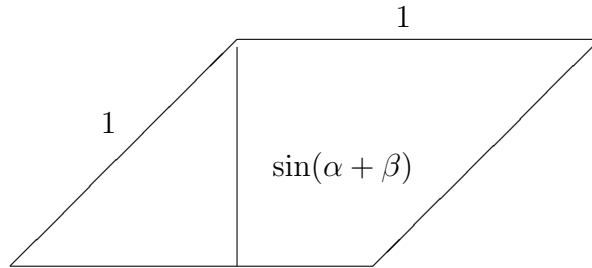
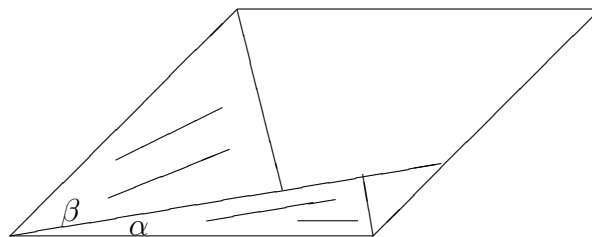


A proof by areas of the $\sin(\alpha + \beta)$ formula.
 A. Miller

The rhombus with sides 1 and angle $\alpha + \beta$ has area $\sin(\alpha + \beta)$.



Drop perpendiculars and consider the two shaded right triangles.



Cut them out and move them into the position shown. The resulting two rectangles have area $\sin(\alpha) \cos(\beta)$ and $\sin(\beta) \cos(\alpha)$.

