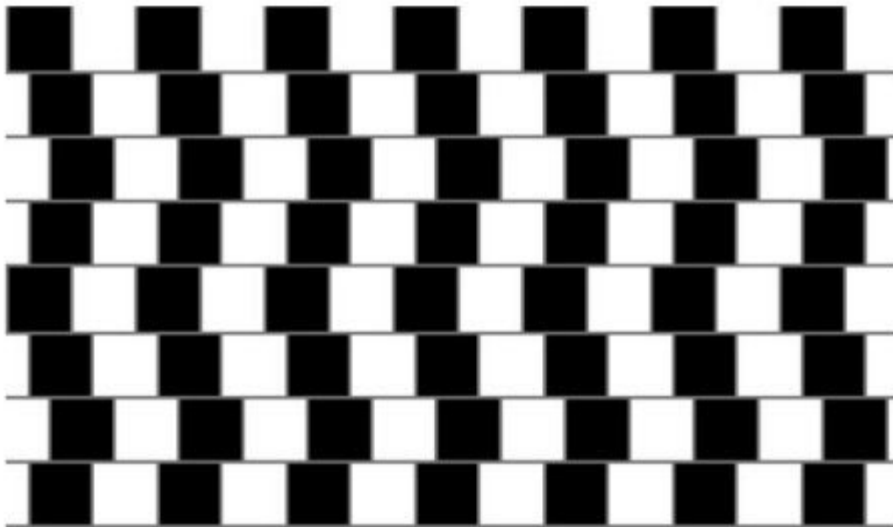


# CHAPTER 6

## ANALYTIC TRIGONOMETRY



Trigi-Nom-etry



$$\begin{aligned} 3) \quad \cot^2 x - \cos^2 x &= \cos^2 x \cot^2 x \\ \text{LS} = \cot^2 x - \cos^2 x & \qquad \text{RS} = \cos^2 x \cot^2 x \\ &= \frac{\cos^2 x}{\sin^2 x} - \frac{\cos^2 x}{1} \\ &= \frac{\cos^2 x}{\sin^2 x} - \frac{\cos^2 x \cdot \sin^2 x}{\sin^2 x} \\ &= \frac{\cos^2 x - \cos^2 x \sin^2 x}{\sin^2 x} \\ &= \frac{\cos^2 x (1 - \sin^2 x)}{\sin^2 x} \\ &= \cot^2 x \cos^2 x \quad (\text{LS} = \text{RS}) \end{aligned}$$