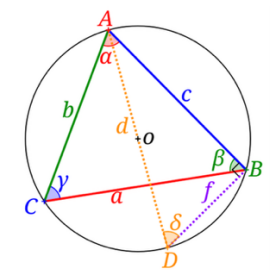


The Chord-Sine Connection

THE MASTER DIAGRAM — everything from today lives in this one picture



THE CHORD-SINE IDENTITY — statement and proof outline

Statement:

For any chord of length ℓ subtending an inscribed angle θ :

$$\ell = \underline{\hspace{2cm}}$$

THE LAW OF SINES AS A CIRCLE THEOREM — what the common ratio finally means

Apply the chord-sine identity to each side:

$$a / \sin A = \underline{\hspace{2cm}} \quad b / \sin B = \underline{\hspace{2cm}} \quad c / \sin C = \underline{\hspace{2cm}}$$

So: $a / \sin A = b / \sin B = c / \sin C = \underline{\hspace{2cm}}$

What the common ratio means geometrically — one sentence, in your own words:

Proof: