

# Letter to the Editor

Dear Sir,

## Six cephalometric formulae

My academic colleagues may find the following formulae useful in cephalometric analysis:

$$SNA + \perp \text{ to } NA = \perp \text{ to } SN$$

$$\text{Sum of posterior angles} = GoGnSN + 360^\circ$$

$$IMPA + GoGnSN + SNB = \bar{I} \text{ to } NB + 180^\circ$$

$$IMPA + GoGnSN + \perp \text{ to } SN + \perp \text{ to } \bar{I} = 360^\circ$$

$$IMPA + \text{basal angle} + \perp \text{ to } Pal + \perp \text{ to } \bar{I} = 360^\circ$$

$$\perp \text{ to } Pal + \text{Basal angle} = \perp \text{ to } FH + FMA = \perp \text{ to } SN + GoGnSN$$

According to geometric reasons, these equations are valid for every individual's cephalometric measurements (Figure 1). The definition of the angles can be found in standard textbooks of cephalometrics. These formulae check 15 angular parameters. It is exhausting to remeasure all these angles to check their accuracy, so these equations may serve as a screening test to find mismeasurements. The formulae can be used by academic colleagues to check their students' measurements or by clinicians to check their own cephalometric measurements.

Yours sincerely,

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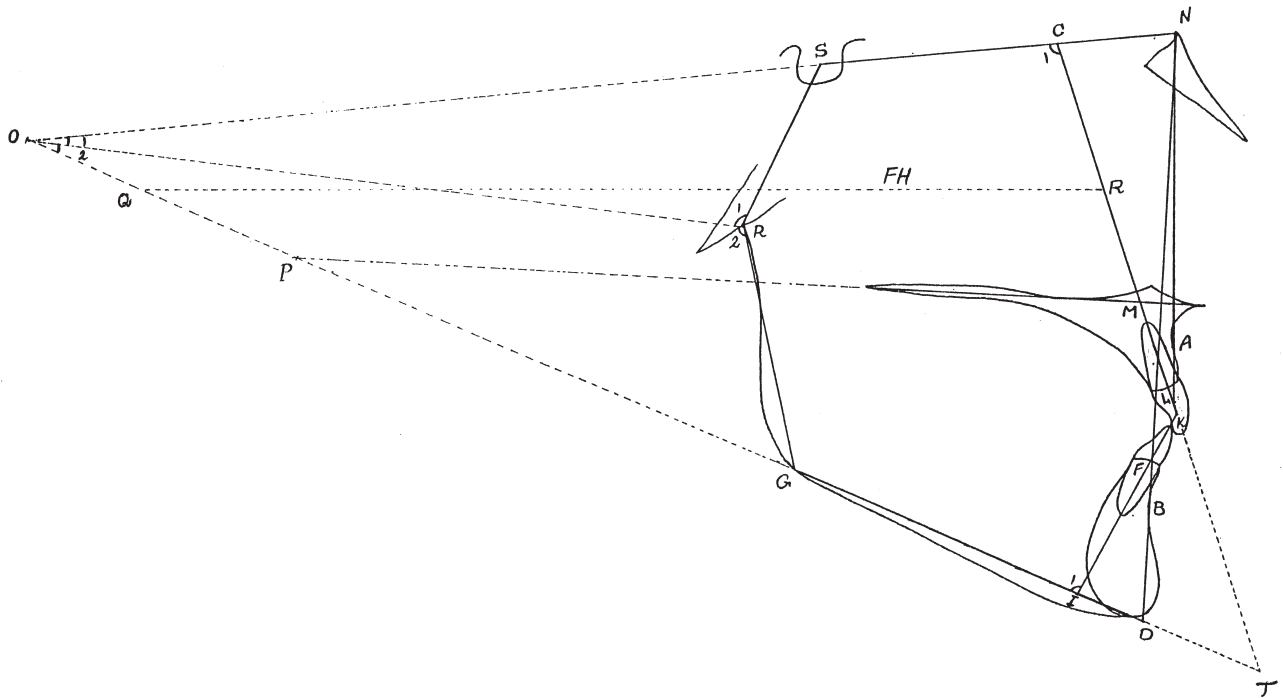


FIG. 1 The geometric basis of the formulae.