The Hebrew Theorem

Author: Brian Ekanyu

Tel: +256776199444

e-mail: bekanyu@gmail.com

Abstract

This paper proves a geometric theorem the Hebrew nation that is the Patriarchs; Abraham, Isaac and Jacob and the twelve tribes of Israel. The chords are drawn in such a way that they form a star of David and a cyclic hexagon. The circle represents the Hebrew state.

Theorem statement:

\[ \text{Abraham} \times \text{Isaac} \times \text{Jacob} = \sqrt{\text{(Benjamin} \times \text{Judah} + \text{Reuben} \times \text{Simeon})(\text{Aser} \times \text{Gad} + \text{Ephraim} \times \text{Nepthalim})(\text{Dan} \times \text{Mannaseh} + \text{Zabulon} \times \text{Issachar})} \]
Derivation:

Let $PA = Abraham, QB = Isaac, RC = Jacob, AB = Judah, PQ = Benjamin, PB = Reuben, QA = Simeon, BC = Gad, QR = Aser, RB = Nephthalim, QC = Ephraim, PR = Manasseh, AC = Dan, RA = Zabulon, PC = Issachar$

Consider cyclic quadrilateral PQAB and apply Ptolemy’s theorem, we get:

$$PA \times QB = (PQ \times AB + QA \times PB) \ldots \ldots \ldots i$$

Similarly by applying Ptolemy’s theorem on cyclic quadrilateral PRAC, we get:

$$PA \times RC = (PR \times AC + AR \times PC) \ldots \ldots \ldots ii$$

Finally by applying Ptolemy’s theorem on cyclic quadrilateral QRBC, we get:

$$QB \times RC = (QR \times BC + QC \times BR) \ldots \ldots \ldots iii$$

Combining equations i, ii and iii by multiplication we get:

$$(PA \times QB \times RC)^2 = (PQ \times AB + QA \times PB)(PR \times AC + AR \times PC)(QB \times RC + QC \times BR)$$

Therefore we get:

$$PA \times QB \times RC = \sqrt{(PQ \times AB + QA \times PB)(QR \times BC + QC \times BR)(AC \times PR + AR \times PC)}$$

$Abraham \times Isaac \times Jacob$

$= \sqrt{(Benjamin \times Judah + Reuben \times Simeon)(Aser \times Gad + Ephraim \times Nephthalim)(Dan \times Manasseh + Zabulon \times Issachar)}$
References:

