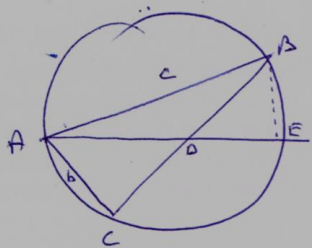


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מלבן הדימונים

$$\left. \begin{aligned} \frac{AC}{AB} &= \frac{CD}{BD} \\ CD + BD &= a \rightarrow CD = a - BD \end{aligned} \right\}$$

$$\frac{b}{c} = \frac{a - BD}{BD}$$

$$bBD = ac - cBD$$

$$BD = \frac{ac}{b+c}$$

$$CD = a - \frac{ac}{b+c} = \frac{ab}{b+c}$$

השטח של ה-ABC נובע מהשטח

$$S_{ADC} + S_{ADB} = \frac{AD \cdot c \sin \frac{A}{2}}{2} + \frac{AD \cdot b \sin \frac{A}{2}}{2} \quad (2) \quad S = \frac{cb \sin A}{2} \quad (1)$$

$$\frac{\sqrt{2}}{2} AD \sin \frac{A}{2} (b+c) = \frac{cb \sin A}{2}$$

$$AD \sin \frac{A}{2} (b+c) = cb \cdot 2 \sin \frac{A}{2} \cos \frac{A}{2}$$

$$AD = \frac{2cb \cos \frac{A}{2}}{b+c}$$

$$AD \cdot DE = BD \cdot CD$$

2 התיבות (התיבות)

$$DE = \frac{\frac{ac}{b+c} \cdot \frac{ab}{b+c}}{\frac{2cb \cos \frac{A}{2}}{b+c}} = \frac{a^2}{2(b+c) \cos \frac{A}{2}}$$