



on a d'après la relation d'Al Kashi:

$$a^2 = b^2 + c^2 - 2bc \cos \alpha \Leftrightarrow \cos \alpha = \frac{b^2 + c^2 - a^2}{2bc}$$

Donc $\cos \alpha = \frac{(41,5)^2 + (102)^2 - (94)^2}{2 \times 41,5 \times 102} = 0,388 \Rightarrow \sin \alpha = 0,9213$

$$S = \frac{1}{2} b \times c \times \sin \alpha = \frac{1}{2} \times 102 \times 41,50 \times 0,9213 = \underline{\underline{1949,93 \text{ m}^2}}$$