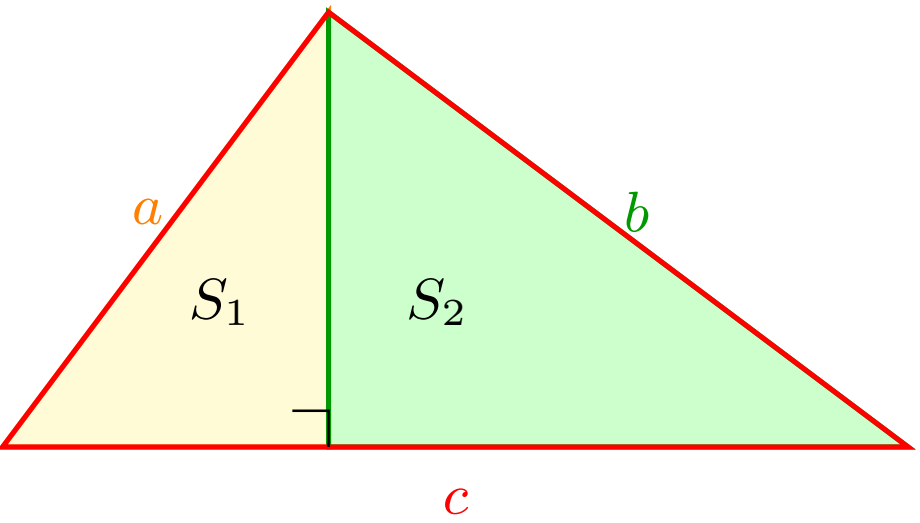
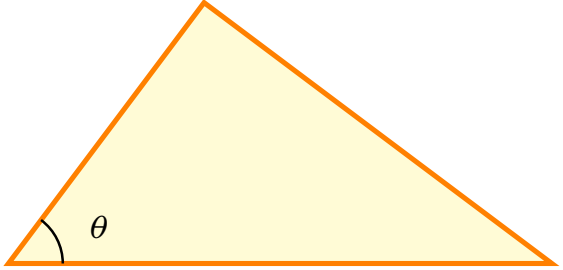
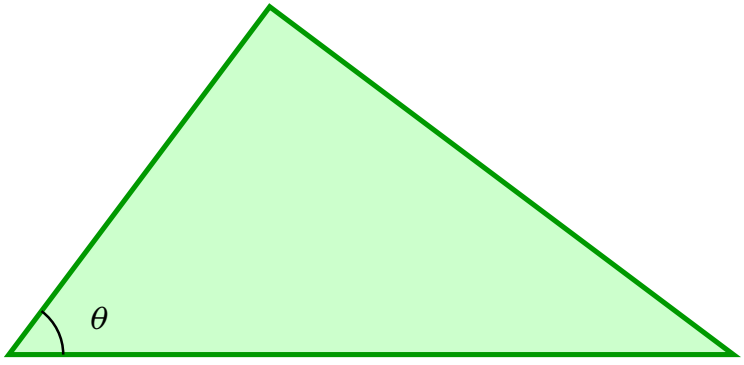




$$S_1 = a^2 \cdot k$$



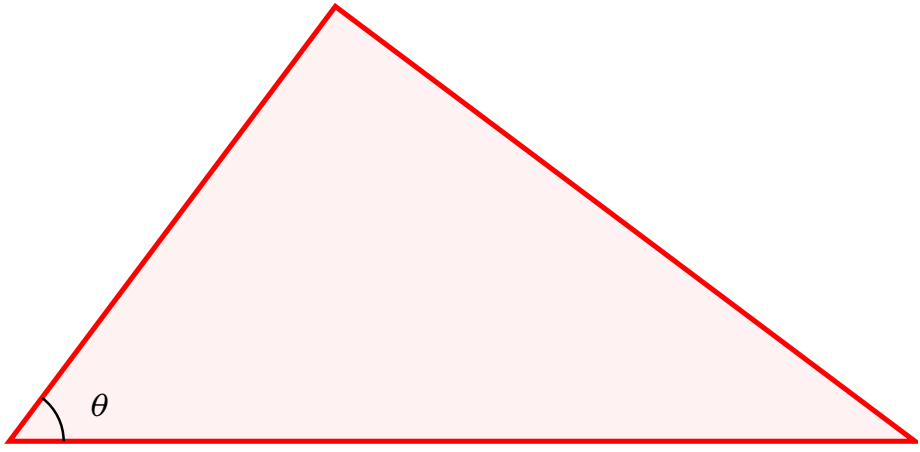
$$S_2 = b^2 \cdot k$$

$$S = S_1 + S_2$$

$$c^2 \cdot k = a^2 \cdot k + b^2 \cdot k$$

$$\Rightarrow \mathbf{c^2 = a^2 + b^2}$$

where $k = \frac{1}{2} \sin\theta \cos\theta$



$$S = c^2 \cdot k$$