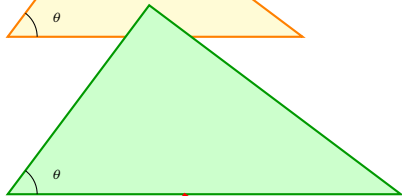
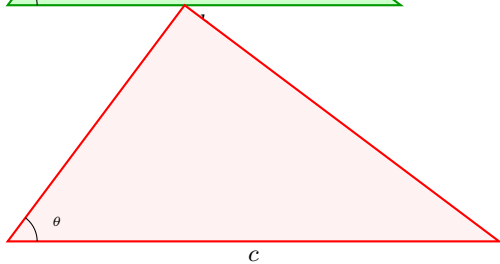


$$S_1 = a^2 \cdot k$$



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



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

$$S = S_1 + S_2$$

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

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

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